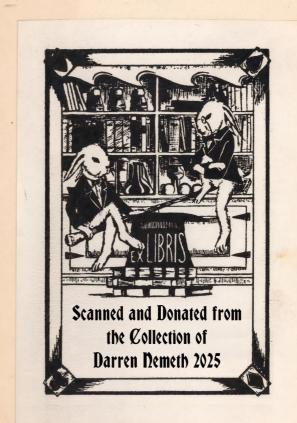


How To Paint Signs and Sho' Cards 1928 3rd Edition

Scanned in 600 dpi and Donated to Archive.org from the Collection of Darren Nemeth 2025



By E. C. MATTHEWS

REVISED AND COMBINED WITH THE COAST TO COAST BOOK OF LETTERING AND DESIGN

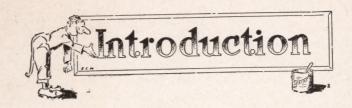
A COMPLETE COURSE OF SELF-INSTRUCTION CONTAINING 100 ALPHABETS AND DESIGNS

> COPYRIGHT, 1920, 1924, 1928 BY J. S. OGILVIE PUBLISHING CO.

J. S. OGILVIE PUBLISHING COMPANY
57 ROSE STREET

CONTENTS

Introduction						3
ALPHABETS .						6
COMPOSITION .						19
COLOR COMBINATION	IS					28
How to Mix Pain	rs					38
SHOW CARDS .						41
WINDOW SIGNS						52
BANNERS						62
BOARD AND WALL		NS				72
READY MADE LETT						80
LACQUER .						84
						87
SILK STENCIL PROC						97
						104
COMMERCIAL ART			•			113
TRICKS OF THE TRA	ADE				0	113



Since the book "How to Paint Signs and Sho' Cards" was first issued great strides have been taken in improving sign painting methods, especially in gilding on glass and in silk stencil process work. These alone would be sufficient excuse for this revised and enlarged edition.

In the pursuit of my calling I worked in many different cities between New York and Los Angeles, met many sign painters and received many compliments—not to mention equally as much criticism—on my book.

Now with the benefit of this advice, and the additional years of practical experience, I have rewritten the book.

Not only we have Mr. Andres' new method of gilding by solution, but the methods of backing up, cleaning off surplus gold, etc., have been greatly improved in the past few years. The tieless stencil or silk screen process has also come into popular use.

These developments, together with many tricks of the trade, and new alphabets better adapted to the lettering brush, make enough material for a new and better book.

The old edition was intended especially for beginners, but this book should prove equally valuable to both the beginner and the practical sign writer.

The shops frequently discourage beginners. In the past the shop saying has been "Don't raise chickens to pick out your eyes." But there is room for us all, and those with real ability need not fear that the youngsters will drive them out.

Sign painting is an art, but anyone who can read and write may learn to paint passably good signs within a reasonable length of time by following the directions given herein.

A good sign painter is often referred to as a genius; genius is nine-tenths hard work.

Anyone who finds joy in creating and can stick to his work can be a genius.

The so-called "born artists" are no more born with the ability to paint than men are born with the ability to read and write, you must study and practice.

Some people learn more rapidly than others, but anyone can learn who wills to do it.

Take this warning and don't try to paint signs with brushes and paints from the ten cent stores.

A long, limber camel's hair lettering pencil may seem clumsy when you attempt to paint on glass, but it is the proper tool and you will soon get used to using it.

I have met many self-made sign painters who were splendid artists and they invariably agreed with me that the worst mistake an amateur makes is in his selection of material.

Carefully study the lists of things you will need, mentioned in the following chapters, and you may save yourself many dollars and many discouraging failures.

HOW TO PAINT SIGNS AND SHO' CARDS

There are hundreds of things on the market in the way of art materials which are absolutely worthless to the practical sign painter.

A good workman needs few tools and when a man has learned to keep his brushes perfectly clean, and to keep his material in good order, he has already made a good start toward learning the trade.

To those not conveniently situated to get Show Card Color Inks it is suggested that they try using ordinary writing ink for practice with the Coit's Pens mentioned on page 41. Fairly good results can be secured, but it doesn't take the place of Show Card Inks. First wet the point in water and rub it between your fingers, and it will then hold the ink. After you dip your pen just shake off some of the surplus ink into your bottle, then start your practice. Make strokes slowly so as to give the ink a chance to flow.

Before buying your artist materials secure information from this book regarding materials that are recommended in order to secure the best results. For instance, for show card colors, see page 41; for drawing ink, see page 41; for brushes, see page 47, etc.

The Aphabets

Alphabets have aptly been called 'The sign painters bogie.'

Many a man wastes years of his life studying the thousands of modified letter faces. Good composition and clean confident brush strokes are far more important than a knowledge of all the alphabets in the world.

If I had to begin over and learn the trade I would get about two good show card brushes, a bottle of color, a ruler, a pencil and some wrapping paper. With the brushes I would practice and bearn the Egyptian and Natural Stroke alphabets as shown in this book, and with the pencils I would learn to draw the Roman and Script alphabets.

Then in a few months when I could render these alphabets rapidly and accurately, without the plate to copy from, I would buy a working outfit and start to do practical work. I would be content to do these alphabets well and devote myself to the study of layouts, color schemes, pictorial work, etc., instead of devoting years to mastering a thousand varieties of impractical alphabets.

The beginner at sign painting, show card writing, or commercial art, should learn to draw a few standard alphabets perfectly before he tries to sell his work. You may use a blackboard and

chalk, wrapping paper and charcoal sticks, or a tablet and lead pencil in learning to draw the alphabets.

Rule a line for the top and one for the bottom of your line of letters. Draw the letters carefully, giving close attention to every detail, be careful to keep the letters in proper proportion to each other, thus—the letter A is much wider than the letter L, etc.

I advise you to begin with the Egyptian alphabet and master this so that you can make any combination of words fit into any reasonable shape or size of space.

Be careful to make your letters perfectly perpendicular, make the straight lines perfectly straight, and make the curved parts curve perfectly in one unbroken curve.

Keep the body of the letters all of one width; be careful of this; if your letter I is heavier than the curved stroke of the round letters it immediately stands out as amateur work.

You will learn to judge and criticize your own work in a short time, which is better for you than to have others show you your mistakes.

Keep the space between letters well balanced, that is, make the amount of white space between letters about the same all the way through every line of lettering. Usually the white space appearing inside of the round letters O. D, etc., should be greater than the white space between letters. Avoid making the inside space and space between letters equal, as it will make the lettering look monotonous.

ABCDEFGHIJKLM 25 abcdefghijklmnpq NOPORSTUVWXY 123456789 WODERN EGYPTAN * rstuvwxyz

E 123456789 abc NOPORSTUVWXYZ defghijklmnopqrstuwxyy 1234 SAFER 6789 Inger face roman with heavy numerals ABCDEFGHIJKLM

The letters A and T may lap over each other a little, while M and N need to be set further apart; the idea is to keep an equal amount of white between letters rather than to keep the letters a certain distance apart. See Fig. 9.

The old rule for the Egyptian or Gothic capitals was to make the average letter about four-fifths as wide as it is high.

The letters E, F, J and L, should not be quite so wide, while the letters A, M, V, W and Y are wider than the other letters. In some modified and modern alphabets the round letters O, C and G are made wider than any of the other letters. These sizes are only approximate, the experienced sign painter or lettering artist does not need to measure his letters or spaces with a rule, but gets more pleasing results by lettering free hand and leaving the spacing to the judgment of his eye.

And you will find that the Egyptian letters are more pleasing to the eye when made considerably higher or more condensed than the rule calls for.

In lettering any large amount of reading matter it is better to use the lower case or small Egyptian letters in preference to the capital or upper case letters, because they are easier to read. Our eyes are trained to read lower case letters a word at a time while the capitals are more likely to be spelled out or read a letter at a time.

The lower case letters should usually be from two-thirds to three-fourths as high as the caps.

The beauty of the Egyptian alphabet is in the grace of the lower case letters, while the beauty of Roman lettering is best shown in the capitals.

The Egyptian letter being very plain can be modified and stretched into many different shapes without becoming illegible. This and the fact that it can be made more rapidly than the spurred letters has made it a favorite style among sign painters and commercial artists.

When you have fully mastered the Egyptian alphabet, the Roman should be your next study.

The shapes are practically the same only the Roman is a thick and thin letter and has spurs at the points.

The Roman capital letters were brought to a state of perfection about two thousand years ago, and have not been improved upon since.

The lower case letters were not introduced until some centuries later, and were brought to their present standard shape by the Italians in the fifteenth century.

In drawing the Roman letters make all the heavy lines of one width throughout the line of lettering and all the light lines must be of one width.

Be especially careful to put the heavy stroke of all letters in the proper place. Don't put the heavy stroke of the A and V on the same side of the letter. Remember this rule for thick and thin letters.—

All lines which slant down and to the left are light and all lines which slant down and to the right are heavy. See Fig. 8.

The letter Z is the only possible exception to

this rule, it is drawn with the slanting line either light or heavy, according to the alphabet you are using.

Sharp pointed and rounded letters should be slightly higher than the others. The points of the Roman A and V should extend slightly through the guide lines you have ruled on your paper. Also the O, C, G, Q and S should extend a little through the line. These letters should be only slightly larger and the difference will not be apparent. If these letters were kept inside of the guide lines they would look smaller than the square letters.

The Roman letters can be modified to suit special occasions with very pleasing effects, but don't attempt modifications until you can draw the standard forms perfectly without the alphabet plate before you to copy from.

The Roman alphabet is suitable for practically all work, and if you are ever in doubt as to what alphabet is most appropriate for your purpose use the Roman.

Avoid mediocre lettering, strive to put character into your work. Thick and thin letters should be either extremely thick and thin, or else so slightly thick and thin that the difference in the stroke is scarcely noticeable. The thin stroke should be either at least two-thirds as heavy as the wide stroke, or else less than one-third as wide.

Heavy letters should have small spurs and light face letters require large spurs. Letters that are extremely wide, extremely tall, extremely light face or extremely heavy are more pleasing than mediocre faces. After mastering the two alphabets just described, the next standard letter is the Script.

In copying the Script alphabet make your letters quite large at first as you can see your mistakes easier in that way.

Try always to make your script lettering look like one continuous flow of harmonious curves; make every curve smooth and graceful without sudden breaks or clumsy shapes.

The Script alphabet is easier to draw and usually looks better when set at a slant, and you should be careful to keep your letters at the same slant throughout the composition,—usually 30 or 35 degrees

If you are using a drawing board and T square you can buy a 30 x 60 degree triangle at any art store and it will be a great help in making slant letters.

Script signs are usually lettered upwards on the window instead of on a horizontal line. And the letters should get slightly smaller as they ascend.

Here too you should observe the rule of extremes, the lower case letter should usually be extremely small compared to the capitals, say about onethird as high, or less.

The ovals of script should usually set either at the same slant as the letter or at the slant of the line of lettering.

Script lettering should be shaded to the right as it gives it more character. Of course where both script and some other style of letters are used on the same sign all lettering should be shaded to the same side.

THE BROKEN RULE IS TO REPRESENT PENCIL LINES ENABLING
THE STUDENTS TO TELL ABOUT HOW FAR THE
POINTS SHOULD EXTEND THROUGH THESE LINES

The light Script is a dainty letter and may be used to the best advantage on signs of a dainty character such as for millinery or candy stores.

Old English is a beautiful alphabet but is little used because it is hard to read. And it should only be used where it is especially appropriate.

The four alphabets just described are the base of all other alphabets now used, and if you master them you have practically mastered all existing English alphabets, and you should be able to originate styles of lettering for all classes of work.

The Italic letters are a sort of combination of Roman and Script forms, and are supposed to have been originated by Petrarch, an Italian poet of the fourteenth century. They were originally used as lower case letters only in combination with Roman capitals; they will also combine well with Script capitals.

Italics harmonize with Roman letters and may be used for the text matter where Roman letters are used for the display or headings.

Like the Script, the Italics should be used upper and lower case only, that is, never use a whole word or line of Italic capitals. Use a capital for the starting letter and use small (lower case) letters for the balance of the word or sentence.

This also applies to Old English or any extremely decorative letter.

The Italics should be slanted and the same degree of slant should be maintained throughout the line or layout of lettering.

The heavy plug letter is a cross between Roman and Egyptian forms. It is very good wherever a

heavy letter is wanted and looks best when stretched out quite wide.

The Spur Egyptian (Fig. 34) is a modification of the plain Egyptian, and when once you have mastered the standard alphabets you will need no instruction on the others.

The Cartoon Poster alphabet is good for humorous story headings, etc.

The Japanese Novelty alphabet is good for Chop Suey signs, or in hand lettered headings for Chinese and Japanese stories.

The Novelty letters shown on the page of modifications (Figs. 34 to 41) are suggestions to give you an idea of forms you can originate for special occasions.

The half block and gas pipe letters are used mostly for "Cut in" work, that is, where you paint around the letters, leaving the wording in white.

The standard proportion is to make the letters about four- fifths as wide as they are tall.

The letters A, M and Y should just fill the square, the W is still wider, and the letters G and V are slightly wider than the standard four-fifths.

The letters F, J and L should not be so wide. The width of the letter faces should be the same as the letter I which is a little over one-fifth as wide as it is tall.

You should know what correct proportions are, so measure your letters at first until your eyes become trained to judge correctly.

To the average person the art of hand lettering looks like a dry study, and they regard the work as a mechanical accomplishment. Nothing could

be further from the truth. When once you have mastered the theory and practice of lettering, it becomes an art and is no longer mechanical. You can express just as much originality and personality in lettering as you can in pictorial work. The human figure has a skeleton and the artist must observe certain rules and proportions, else his work will look like a monstrosity instead of a thing of beauty.

So it is with the lettering artist; but when once he has the fundamentals of lettering he will find it possible to make hundreds of pleasing modifications; in fact, he adopts letter forms to suit every purpose and occasion, and his possibilities are as

unlimited as in any art.

The Chapter headings in this book are examples of modified lettering. It is usually customary to keep such headings in harmony with each other; however, I have purposely neglected that in order to show many different styles of lettering. These were hurriedly sketched and are not perfect, but will give you some idea of the possibilities along this line.

The most difficult and most necessary accomplishment for the sign writer is the development of a smooth, confident stroke with the lettering brush.

In my estimation the greatest obstacle in the path is the use of stiff old style type Gothic, Roman and block letters for brush lettering.

No matter how well you know the alphabet, nor how many years experience you have had with brushes, the formation of these letters which do not conform to natural brush strokes remain a tedious task

Very few sign writers have realized the full value of 'single stroke' lettering. The single stroke method is as practical for gold work as for show cards.

I don't mean by this that finished lettering is unnecessary. You should be able to do the standard finished alphabets perfectly, and then let 'em alone as much as possible.

Most of the new alphabets that have been added to this book are examples of natural stroke styles which can be easily formed with a lettering brush.



Almost the same advice I gave regarding alphabets might be applied to composition. I can give a beginner enough information in five minutes time to enable him to make a good sign 'layout'. But it may take him several years to appreciate this advice enough to use it.

The principal points to observe are: leave plenty of margin around your lettering, make the feature word, or words, very prominent in comparison with the balance of the lettering, divide the sign into

seperate panels or groups of words where it is possible, and keep the entire sign well balanced.

Composition is as important in sign work as it is in landscape painting.

Good lettering doesn't make a good sign unless the layout or arrangement of the lettering is good.

A good composition usually contains an element of squareness, curvature and radiation.

The straight and curved forms of the letters may give the squareness and curvature while a bit of scroll work or a line of lettering arranged in a semicircle may add the touch of radiation to your layout.

Mechanical perfection in composition is not pleasing. A perfectly square sign is not as pleasing to the eye as an oblong.

A perfect circle is not as beautiful as an oval form or a circle broken by other lines.

The principal line of lettering should not come exactly in the center of a sign, measuring up and down, but usually would look far better if placed well above the center.

Your design should show harmony in its relationship. Block letters are appropriate for a hardware store or an ice and coal sign, and a light Script or other dainty letter should be used on the window of a lace and fancywork store.

Don't use Heavy Plug letters on a milliner's sign and Old English on the smoke stack of an iron foundry.

A good sign must contain contrast as well as harmony. There should be contrast in the size of lettering, and the color of the letter should con-



trast as much as possible with the background. Wherever possible use at least two different sizes of lettering. Bring out the line of most importance larger than the remainder of the lettering.

Don't use too many styles of lettering on one sign, one or two styles is usually enough. And these different styles should harmonize. Roman harmonizes with Italic or Egyptian, but Full Block doesn't harmonize with light Script.

Full Block letters are very appropriate for a bank sign, because they look substantial. Where they are used for the display line Egyptian or Half Block is good for the small lettering.

When Round Full Block or Heavy Plug letters are used for display lines, plain Egyptian is good for the less important wording.

Roman letters harmonize with the straight lines of architecture, while Italics harmonize best with Scroll designs.

Now and then a line of lettering on the slant will kill the monotony of a "layout," but don't overdo it.

Try to keep your designs well balanced, don't crowd your words or make your letters too large for the space. A well-arranged layout of small lettering is easier to read than a crowded sign of large lettering.

Underlining a line or two of lettering will sometimes improve a sign, and it helps to "tie" the design together.

A touch of scroll work or a fancy initial will often improve a sign fifty per cent, but don't carry the decorative idea too far. Scrolls and other decorations should be in a subdued color or they

HOW TO PAINT SIGNS AND SHO' CARDS

may stand out stronger than the lettering and spoil the sign. A plain neat sign is better than one which is over-decorated.

"Distance lends enchantment" in sign composition as well as in life. By using a shade under the letter or some other touch of perspective you can suggest the distance.

The shade should fall downward and to the left and usually should be set entirely away from the letter and not connected to it. See Fig. 7.

The reason for shading letters to the left is that it takes less time, as fewer brush strokes are required than for a right-hand shade.

A highlight will often improve the appearance of a letter also.

The highlight should be on the face of the letter and at the upper right-hand edge directly opposite the shade.

Where both highlight and shade are used the highlight should usually be lighter than the face of the letter, while the shade should be darker.

Display letters should usually be improved by outlining; for instance, if you were to paint a black letter on a green wall a line of white around the letter would be a great improvement.

An outline of blue, red or green is often used on aluminum window signs.

Face decoration is another method of improving plain letters. For painting face decorations use a color which contrasts with the background more than the letter itself does.

White paint is the best material for face decoration or highlights on an aluminum window sign.



SPOTS RED LINES GREEN



In making a gold window sign with face decoration, two colors of gold leaf are usually used. The outline and face decoration is laid with deep gold, then backed up and the surplus gold removed before the body color of lemon gold is laid.

If you paint plain black letters on a white background, a drop shade of light gray will greatly improve the appearance of the letters.

Letters possess character, and as the portrait painter strives to bring out the character of his model, so the sign painter should try to bring out the peculiar characteristics of the letter which he uses.

The plain Egyptian, and light Script letters are tall and may be made taller than standard proportions and still give a very pleasing effect.

If you want to make a living from sign painting within a short time, I advise you to give your entire attention to the Roman and Egyptian alphabets, and learn to make one good single stroke alphabet, say the Modern Text. The heavy Bulletin Roman is good for all-around work.

Stick to the three above alphabets and let the others alone for the first year or so; you can handle all classes of work and your lettering will develop character, while if you try to use all the different alphabets you will only confuse yourself, and will be unable to do anything well.

One of the best sign painters I have ever met used three alphabets exclusively on nine-tenths of his work. He used the plain Egyptian, Heavy Plug, and single stroke Italic. He was an unusually fast workman and his signs always looked snappy and full of character.

I have also known several fairly good painters who used only two alphabets, usually Egyptian and Script. It is far better to do two alphabets well than twenty in a slipshod manner. Whatever alphabets you may select, strive to draw perfect letters, make the straight lines straight, the curves smooth, and the spurs sharp, and keep the letters in proper proportion to each other.

Speed is a thing which will eventually come to a good workman, but work for perfection rather than speed until you can really do good work.

Here are a few suggestions for making modified alphabets.

Never mix alphabets, that is, don't use Roman and Egyptian, or Poster and Half Block letters in the same word.

When you use a letter with spurs (Spurs are shown in black in Fig. 18), all the letters of the word or line should be spurred.

Or if you use a top-heavy S, the other letters which will permit should be top-heavy. See Fig. 39.

These modified forms may be used and the remaining letters made just as they are in the alphabet, plate No. 4.

Notice the ends of the letters C and S in Fig. 34; they are straight up and down instead of at an angle, as in alphabet No. 4. Therefore the ends of G and J would be made the same way to follow out the modification.



It takes a man with a good knowledge of color and years of experience to combine many colors in one composition and get pleasing results.

Watch the good color combinations you see in show cards and other signs and try to adopt the best of them.

Following are a few good color combinations for signs and show cards.

The first four are harmonious combinations, and the last three are good examples of strong contrasts.

The contrasts are best, especially for most beginners' work.

Background Lettering		Shade	Scroll	Border		
Black	White	Dark gray	Dark gray	White		
Light gray	Black	White	Dark gray	Dark gray		
Red	Pink	Carmine	Carmine	Pink		
Blue	Dark blue	Light blue	Dark blue	Light blue		
Light green	Black	Red	Red	Brewster		
Black	White	Red	Green	White or green		
White	Red and black	Gray	Light green	Green or gray		

In the last combination the large lettering would be red and the small lettering black.

Where white lettering is called for aluminum may be used if desired.

Experimenting with color combinations for

HOW TO PAINT SIGNS AND SHO' CARDS

practice is all right, but when you are painting signs for customers, use color combinations which you have already tried out and found satisfactory.

The three primary colors are Red, Blue and Yellow.

Purple, Green and Orange are the secondary colors.

Purple is made of red and blue.

Green is made of yellow and blue.

Orange is made of yellow and red.

Given the primary colors an artist can mix any other color for himself. However, most painters buy the colors they want to use and mix colors only in emergencies.

When two primary colors are combined the third primary will be the contrast for the mixed color. Thus, if you mix red and blue you get purple, and yellow will make the strongest contrast for purple. Red contrasts with green, and blue is a contrast for orange.

Another thing to remember in color composition is that yellow has the appearance of coming toward the observer. Red stands still; and blue recedes.

Different shades and tints of color may be made by adding black and white. By adding a small amount of black to blue you get an indigo color, or by adding a large amount of white you get a sky blue.

Black is very strong and should be added to other colors very sparingly or you will get them too dark.

Sign painters use colors which are already ground in oil or Japan and seldom mix dry colors.

MODIFICATIONS WINTER RUSTIC P.B. HEFK SR. MODERY.

MODIFICATIONS

A VERY FAST CUT IN LETTER ADAPTED FROM THE "GAS PIPE" ALPHABET.

GERMANS A ROMAN MODIFICATION

WELL ADAPTED TO CURVED LINES, BALL SPURS MAY BE OMITTED

POSTER

ADAPTED FROM HEAVY PLUG ALPHABET
GOOD FOP LARGE KNOCKOUT SIGNS ON ROUGH SURFACES

SOME RULES FOR MODIFIED LETTERS.

SHOULD USUALLY MATCH;

ALSO AND

IN MAKING ROUND LETTERS
WITH FLAT TOPS CARRY THE MODIFICATION ALL THE WAY THROUGH.

GS

CARRY ALL MODIFICATIONS
THROUGHOUT THE LINE, DON'T
MIX THEM HERE AND THERE.

OG

THE BEST MODIFICATIONS
ARE THOSE BEST ADAPTED TO
NATURAL PEN OR BRUSH STROKES.

R.S.

Colors in oil or Japan are in a heavy paste form and are thinned as used.

For work on glass, the color is mixed with varnish. For muslin, the color is mixed with gasoline and varnish. For wood, with oil and turpentine, and for brick walls, the color is thinned with oil and gasoline.

Where colors dry too slow, Japan drier is added. Sign painters use the strong pure colors for most work, while house painters use softer tints which are made by mixing colors with a large percentage of white lead.

Tint is the proper word to express very light colors; or colors mixed with a large amount of white.

Shades are dark colors made by adding black to other colors.

Hue means a particular tone of any color, such as orange-yellow, or purple-blue.

The following primaries are most used by sign painters:

Permanent vermilions and bulletin reds are used because they are more brilliant, opaque and durable than most other reds. Some reds are not durable if mixed with white lead,—this is usually mentioned on the label.

When it is necessary to add white to such reds, zinc white should be used.

The principal blues used are Prussian, (very dark) Ultramarine, (dark) and Cobalt (medium). There is a new blue called Bulletin Blue which covers better than the others.

HOW TO PAINT SIGNS AND SHO' CARDS

Chrome is the sign painter's yellow; it comes in three shades:

No. 1 Chrome, or Lemon;

No. 2, or medium Chrome; and

No. 3, or Chrome Orange.

The following list may be referred to for mixing colors: The amount of each color required is not always given because that depends altogether on the tint, shade or hue desired. But usually you should use more of the light colors than the dark ones.

Use a larger portion of the first color mentioned where exact proportions are not given.

Brewster Greene—Green, black and a touch of vellow.

Brown-Yellow, red and black.

Buff-White and yellow.

Canary-White and No. 2 Chrome Yellow.

Chestnut—White and brown.

Chocolate—White, burnt umber and yellow. Or red, black and yellow.

Citron-3 parts red, 2 parts yellow, 1 part blue.

Coral Pink—White lead 10 parts, Vermilion 3 parts, Orange Chrome, 2 parts.

Cream—Add small quantity of yellow and drop of red to white.

Drab—White lead 9 parts, Ochre 1 part, a drop of lamb black.

Flesh—White with a small amount of red and a drop of yellow.

For a sallow complexion add umber or olive green, very sparingly.

Gray-White and Black.

Green-Yellow and blue.

Lavender—Add white to violet, or mix white, black and red.

Maroon-Red and black.

Neutral Gray—Yellow, blue and red. Add white for lighter tints.

Old Ivory—White lead tinted with a few drops of raw sienna.

Oid Rose-Carmine, white and a drop of black.

Olive Green-White, yellow, green and black.

Orange—Yellow and red.

Peacock Blue—3 parts white, 1 part light Chrome green, 1 part ultramarine blue, a drop of black.

Pea Green-White and green.

Pearl Gray—White lead and a very small quantity of red, blue and black in equal proportions.

Pink—White and red.

Pink Shell—White 50 parts, vermilion 2 parts, orange chrome 1 part, burnt sienna 1 part.

Purple-Red and blue.

Purple Lake—Vermilion and a little ultramarine blue.

Rose—Tint white with carmine.

Scarlet—Vermilion 8 parts, carmine 1 part, zinc white 1 part.

Sepia Color—Burnt sienna, small quantity of lamp black and Indian red.

Sky Blue-White tinted with blue.

Straw Color—White 8 parts. medium chrome 1 part.

NOTE: For additional color combinations see adv. of King's Color Mixing Guide, and Bustanoby's How to Mix Colors at back of this book.

HOW TO PAINT SIGNS AND SHO' CARDS

Tan—White, burnt sienna, chrome yellow and raw umber.

Terra Cotta—White and a small quantity of burnt sienna, drop of black.

Violet—Blue and red.

Wine Color—Three parts carmine, 2 parts ultramarine blue.

White is not strong but has the good quality of being opaque (that is, not transparent), and is frequently mixed with other colors which are somewhat transparent, such as Prussian blue, to make the color more opaque. Prussian blue, red and other dark colors are so strong that a small quantity of white doesn't materially change their appearance. But a very small quantity of color, such as might be in an uncleaned brush, would be sufficient to tint a whole can of white and spoil it for use as white paint.

Warm colors harmonize with each other. Red, yellow and orange are warm colors.

Blue is a cold color and harmonizes best with other shades or tints of blue.

Black harmonizes with warm colors, and warm colors are used more than cold ones in sign painting.

To mix a warm gray to harmonize with other warm colors add a small amount of red and black to a larger quantity of white.

For a cold gray mix in blue instead of red.

Black and white make a very strong contrast and such signs are therefore easiest to read.

The eye sees white objects. If all the world were black we would be blind. When you read the

newspaper you don't see the black lettering so much as you see the white background behind it, this enables you to read the paper; therefore, if the paper was black and the lettering white it would be easier to read.

I believe that white letters on a black background form the most readable sign that can be made.

Personally I think green and red are the best colors to use on an aluminum window sign, and they may both be used on the same sign for contrast.

Thus, if the lettering is shaded with red the scroll work should be green. Or if the display line is outlined with red the small lettering might be outlined in green, etc.

For transparencies I prefer black and white. A line of gold and red along the bottom will make the sign look richer.

For gold leaf shades and outlines, black is the old standby, but other colors are used a great deal. In New York, blue is used almost altogether with gold.

Green and red are beautiful contrasts for gold, and small touches of these colors may be used to very good advantage in decorative work.

Black is the best color to use in combination with silver leaf.

Where red and blue are used on the same sign, they should not usually come in contact with each other, but should be separated by white. Notice how a barber pole is striped so that these colors are always separated by white.

When colors are used in making show cards you can usually get more pleasing results by using subdued or soft colors; that is, mix white with your colors instead of using them all as brilliant as they are when you buy them.

Bright colors are made more brilliant by surrounding them with subdued tints.

A sign must have contrast to be readable, don't try to letter on a dark background with a dark color. If the surface is dark the lettering should be white or a very light color; or if the background is white the lettering should be dark.

Red, Black, Blue and deep Green are the principal dark colors used. White, Chrome Yellow, Aluminum or Gold lettering shows up well on dark backgrounds and *vice versa*.

Where it is necessary to letter on a medium shade of Gray, Green, Brown or other background where neither light nor dark colors show up very well, you can get the necessary contrast by painting a dark letter with a white outline, or a white letter with a dark outline.

Black, white and orange makes a very showy combination.

One thing which every amateur should avoid is the use of too many colors. Don't try to use all the colors you have on one sign. Simple color combinations are the best.

Let simplicity be your guiding star in sign painting. There is a rich dignity about a good black and white sign which cannot be surpassed by anything but gold leaf.

Do not paint window lettering on the outside

of the glass with dark red, blue or black as it will not show up unless it has a white background.

How to MIX PAINTS

To break white lead properly for flat work you should stir in a small amount of turpentine and let it stand over night. In the morning pour off the milky liquid and stir in fresh turpentine. Repeat the above operation until the liquid is absolutely clear after standing. Then mix with turpentine and rubbing varnish.

To make white paint of the white lead, add linseed oil in the proportion of 5 gallons to 100 pounds of white lead. A pint of Drier may also be added. Or in winter time use 4½ gallons of linseed oil, ½ gallon of turpentine and a pint of Japan drier to 100 pounds of white lead.

For Primer, or first coat on new buildings, most house painters use $6\frac{1}{2}$ gallons of raw linseed oil and $\frac{1}{2}$ gallon of turpentine to 100 pounds of white lead.

White lead should be purchased already ground in oil, but red lead should be purchased in the fine ground dry state, and mixed as used.

Red lead is used for prime coat on iron work or where the finishing coat is to be red.

Red lead is considered much better than white lead for painting iron, or for boats and other surfaces submerged in water.

Gasoline is used for thinning white lead for brick wall or bulletin signs. Bulletins are not usually expected to last over six months.

But for house painting gasoline should never be

HOW TO PAINT SIGNS AND SHO' CARDS

used, and turpentine should be used sparingly on exterior work, or the paint will become chalky and rub off.

Paint peeling is usually caused by applying the paint too thick; by painting a second coat before the first coat is dry, or by painting on damp wood.

Colored paints are made by grinding the dry color in linseed oil and then thinning with oil and turps. Usually white lead is added to make the paint cover better.

(In mixing blacks and greens more driers are necessary than with most other colors. One of my first mistakes in sign painting was to mix lamp black with raw linseed oil. That was ten years ago, and I doubt if the black is dry yet. It wasn't the last time I saw it.)

To give you an idea of how much white lead is used in colored paints I am giving you the proper proportions of ingredients for a chocolate brown paint:

One hundred pounds white lead, 25 pounds of burnt umber, 10 pounds of burnt sienna, 4 pounds Chrome yellow, 5½ gallons of linseed oil, ½ gallon of turpentine, 1 pint of Japan drier.

This would make over ten gallons of very good paint, much better than any ready mixed house paint.

White lead is added to most other colors in about the above proportions, unless a very brilliant color is wanted, then less white is used.

For interior or flat coat work the paint is thinned with turpentine and very little oil is used.

Some pigments require a great deal more oil

than others when grinding to paste form; for instance, 25 pounds of white lead will only absorb about 3 pounds of oil in grinding, while 25 pounds of burnt sienna would require almost 45 pounds of oil.

The following table gives approximately the amount of oil required in grinding raw pigments to paste form:

25 lbs.	chrome yellow	requires	5	lbs.	oil
25 lbs.	vermilion	66	6	66	66
25 lbs.	chrome green	66	5	6	66
25 lbs.	yellow ochre	66	16	66	46
25 lbs.	ivory black	66	28	66	66
25 lbs.	cobalt blue	66	31	66	66
25 lbs.	raw sienna	"	35	66	66
25 lbs.	Florentine brown	66	37	66	66

Other colors require somewhat similar proportions; for instance, light red, light ochre, and zinc white require just a little more oil respectively than vermilion, yellow ochre and white lead.

This table is given for painters who use large quantities of paint and should not confuse the amateur sign painter, who is seldom, if ever, required to grind his own colors.

For those who wish to know what proportions to use in order to obtain the different shades in using oil colors for art work, the publishers recommend the book, "Bustanoby's How to Mix Colors," which costs \$1.00 and may be obtained where you bought this book or from the publishers of "How to Paint Signs and Sho' Cards."

The beginner at sign painting would do well to confine his efforts to show cards and paper signs for his first year of practice.

Show card colors come prepared, ready for use and are put up in glass jars. They are much cleaner to handle than oil colors.

The Devoe, Weber, Bissell, Carter and several other brands of color are all good.

For pen lettering there is a special speed ink, but I prefer Higgins waterproof drawing ink.

The old style Sonnecken lettering pens are very good when used with an ink retainer, they will fit in an ordinary pen holder. Speed ball pens are good for some purposes.

Coit's Ball Bearing Lettering Pen works smoothly and evenly in making letters with clean cut edges without smudging. First wet the pen with water before dipping in ink. Hold the pen as you would a pencil, keeping it flat on the surface of the paper. Make sure the liquid flows freely; if too thick it will clog the vents in the pen. Use any standard make of show card colors, diluted with water if necessary to permit free flow through the vents in the pen. Be sure the vents in pen are kept open. Let pen stand in water after using, or

JPEED PEN POSTER

ABCDE FGHJK LMNOP QRSTU VWXYZ

HOW TO PAINT SIGNS AND SHO' CARDS

wash thoroughly. These pens are made in 1/16, $\frac{1}{8}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{3}{4}$, and 1 inch in width.

Red sable brushes are the only satisfactory tool to use in water color, they are expensive but with proper care a good brush may last for years.

When you are through using a brush in color, wash it out well in water, squeeze it out flat between your fingers and lay it away. Do not allow the color to dry in the brush as it deadens the hair.

These brushes give best results if always used one way, that is always keep the number or some other mark on the handle facing up or down.

Work the brush out flat by pulling it back and forth over a piece of glass or cardboard before you start to letter, and keep it worked that way all the time.

Practice the brush strokes as shown on the plate Fig. 6 for half an hour a day and you will soon get perfect control of the brush.

Hold the brush loosely between your thumb and first finger with the handle pointing over your right shoulder almost perpindicular to the surface you are working on.

Hold the brush down near the hair and let it revolve between your fingers as you make the round strokes of the Egyptian letters.

In making the thick and thin alphabets such as Modern Text, Natural stroke, Italic, etc., the brush is held more rigid and does not revolve between the fingers. These alphabets can also be made with the flat lettering pens already described.

Show cards are made mostly with 'single stroke' alphabets. 'Single stroke' means that each part

CARCOEF GAILLAKOM RIPA ROPORSTURAN STATEM ROPORSTURAN STATEM REPORTED TO THE CONTRACTOR OF THE CONTRAC abedefghijklmno parstubmxyz-\$48 1934567



of the letter is made with a single stroke and doesn't require retouching.

It requires about twenty-two seperate brush strokes to form a half block letter S while a single stroke S is formed with three brush strokes.

The Egyptian, Round Full Block, Modern Text, Italic and Natural Stroke alphabets are best adapted to show card writing.

If the beginner will confine himself to two of these styles, say the Egyptian and Natural Stroke, he can make much better progress than he could if he used too many styles of lettering.

Take a very hard pencil to rule the lines on your card and do it lightly, they will scarcely be noticeable when the lettering is on. Or you can use soft charcoal sticks and dust the lines off when the lettering is done.

Leave plenty of margin around the edges, the bottom margin should be a little the widest, and make the lettering small enough so that it will not appear crowded.

Decide just what part of the wording is most important on the card and make that word, or those words, considerably larger than the balance of the lettering.

This catch word, price or whatever it may be attracts attention and causes people to read the balance of the card.

Keep your color combinations simple, black and red lettering on white cards, or white and orange lettering on black cards, etc.

If you use any scrolls, border lines or other decorations keep them subdued, that is much softer

than the lettering, pale green or gray, on white cards, etc.

If you live in a large city study the styles of cards in the downtown store windows; you can learn more about styles of layout and color combinations by observing the work of others than could be put into a book.

If your color gets too thick thin it with water. A drop of glycerine added makes it work better. If the color has a tendency to rub off, mix a little mucilage with it.

Do not try to use writing ink, cake or tube colors, pointed brushes, or any cheap cancel hair or bristle brushes for making show cards. Such materials mean wasted money and wasted time in trying to use them.

Show card brushes are round and made of Red Sable hair and are trimmed square at the end. Flat brushes may be used for very large work.

You should have about three round show card brushes to start, sizes 6, 9 and 12 make a good set.

For Script lettering use a small pointed Red Sable brush and outline the letters, then fill in.

Always wash your brush carefully when you change from one color to another, as a drop of dark color will change the shade of a lighter color. Wash these brushes in cold water only.

"Signs of the Times" is a magazine for sign painters; it sells for thirty cents per copy, or \$3 per year. It is published at Cincinnati, Ohio. It carries "ads" of all the sign painters' supply houses. If you get catalogs from these houses you

The speed pen poster alphabet can be made quite rapidly as a single stroke letter by using a style B Speed Ball Pen.

An air brush is an instrument for spraying color and is used by many card writers for obtaining artistic effects. It is usually used with a stencil, that is, the part of the card not to be tinted is covered up with a pattern cut from cardboard or heavy paper. A complete air brush outfit costs from \$25 up. You can imitate airbrush effects with a tin fixatif sprayer which can be purchased at an art store for about twenty cents. Or you can use a perfume atomizer. The color used for this purpose must be mixed very thin.

Dry color can be rubbed into a card with a piece of cotton, and many beautiful blended effects can be obtained.

For novelty effects a piece of wall paper can be cut out, pasted on the card and outlined as a panel, then you can letter on the wall paper with white or some other suitable color.

Seasonable cards, style cards, etc., should be decorated to suit the season. Following are a few suggestions:

Winter scenes for January.

Washington and Lincoln pictures, hatchets, cherries, etc., for February.

Easter lilies, rabbits, and scenes showing wind and rain or spring blossoms for March and April. Flowers and flags for May.

Roses, brides and commencement scenes for June.

Flags and firecrackers for July.

Vacation scenes for July and August.

School scenes for September.

Autumn scenes with autumn leaves and colors for September and October.

Turkeys, pumpkins and corn shocks for November

Holly, mistletoe, poinsetta, Santa Claus and snow scenes for December.

You can often cut suitable colored scenes from magazines and paste them on, then by outlining the edge of the panel with a light color the picture will appear to be painted right on the card. Diamond dust or flitter brocades make beautiful effects for some classes of show cards. You can buy it in packages for about twenty cents an ounce. An ounce will decorate a great many cards. To apply the flitter you should purchase a bottle of mucilage and a small camel hair brush (don't use your Red Sable brush for this). Paint on any form of decoration you prefer with the mucilage and sprinkle the flitter on while the mucilage is wet. After it has set and dried a few minutes you can shake off the loose flitter and put it back into the package.

Don't try to sell your work until you can do it well, then charge twenty-five cents and up for each card you make.

Show card board usually comes in sheets 22 x 28 inches and costs from four to eight dollars per hundred sheets. You can purchase it from a 50

HOW TO PAINT SIGNS AND SHO' CARDS

printer, or better still from a wholesale paper house.

Simple, full sheet cards bring from one dollar up. A Bill of Fare or other card containing a large amount of lettering should bring about twice as much.

Half sheet cards, 14 x 22 inches, sell for 50 cents and up; a card bearing an illustration should bring more than a plain lettered card. Charge for your time.

Quarter sheets, 11 x 14 inches, or smaller cards, sell for 25 cents and up, according to the amount of lettering. Air brushed cards are worth about fifty per cent more than plain cards.

Price tickets are worth from 30 cents to \$3 per dozen, according to style, etc.



WINDOW SIGNS

Window work can be divided into four principal classes:

Painted or Bronzed Signs, Transparency Signs, Gold Leaf Work, and Ready Made Letters.

In this chapter I shall describe the first two classes of work, the other two will be treated in later chapters.

Window signs are classed as permanent work and are painted with colors ground in oil or Japan.

Do not buy ready mixed paints for sign painting, but buy colors ground in oil or Japan. They come in one-pound cans and you can obtain them at any good paint store. The difference between oil and Japan colors is that Japan colors dry very rapidly; Japan colors are also called coach colors.

Colors ground in oil dry slowly, but they have more gloss and are more durable than Japan colors. Japan driers may be added to oil color to hasten drying. Linseed oil is added to slow the drying process.

HOW TO PAINT SIGNS AND SHO' CARDS

To do aluminum bronze and transparency signs you should have the following materials:

1 lb. Vermilion in oil,

1 lb. Medium Chrome Green in oil,

1 lb. French (or Zinc) White in oil,

2 lbs. White Lead in oil,

1 lb. Coach Black (Japan Color),

1oz. Aluminum Bronze Powder.

Several camel hair lettering brushes in quills, usually called lettering pencils, sizes 4, 6, 8 and 10 are convenient. They cost from 10 to 40 cents each.

One-half pint of Nonpareil Japan (this is manufactured by the Chicago Varnish Co.), other makes of quick gold size or coach Japan may be used, or, if you can't obtain this, a good grade of house painter's Japan will do.

One-half pint of Exterior Spar Varnish. A putty knife or paring knife, or both. Some turpentine, a chalk line, some chalk, yard stick and some old safety razor blades. The blades are used for cutting off old window signs and straightening out bad places in your lettering.

This selection of material will cost about five dollars. You should also have some kind of a box or carrying case for the outfit. Later you may add yellow and blue color, some linseed oil, a mahl stick, etc., to your outfit.

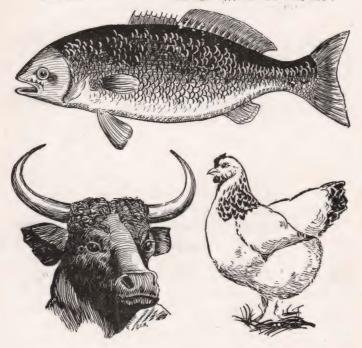
Now, if you have learned to draw the alphabets and make show cards you will have very little trouble in making a passable window sign. You will probably have some trouble in getting your

PROPER WAY TO SKETCH PROPORTIONS

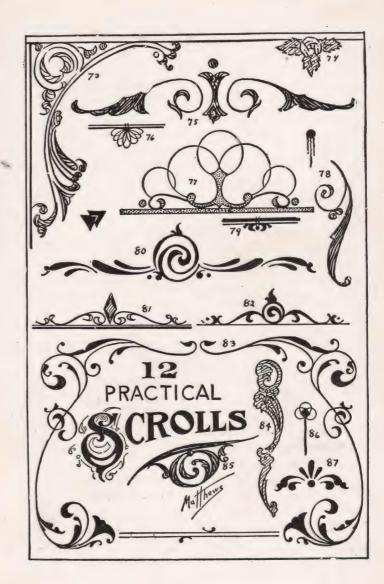


"BLOCKING IN"

FINISHED -WITH BLOCKING ERASED.



MEAT MARKET PICTURES



colors and brushes to work right at first, but a little practice will overcome that.

First chalk your layout on the window, snapping the straight lines for top and bottom of each line of lettering with your chalk line. Then draw the letters lightly with chalk. This is done to be sure to get the spacing and balance right, and as you become more experienced you will not need to draw the letters in detail for this kind of work.

If your chalk doesn't mark well on the glass, hold it to your mouth and breathe on it, this will cause it to adhere better.

Be very careful to have the layout well balanced before you start to paint.

Aluminum is the most popular material for cheap window signs, it has an attractive appearance and will often last for years. Aluminum signs are painted on the outside of the window while transparency work is done on the inside.

Now to start your aluminum sign. Take an empty can or small cup and pour a small quantity of the Nonpareil Japan in it and add about one-half as much Spar Varnish as you have Japan and then mix in a small quantity of the zinc white, chrome yellow, or other light color, just enough to color it so that your brush strokes will show plainly on the glass.

(Different men have different ways of mixing "size," some use Japan only, others Varnish only, but I prefer a mixture.)

Now take your camel hair lettering pencil, No. 6 or 8 is a good size, dip it in the color and work it out flat on the side of the can, or on your putty

knife, just as you work the show card brushes flat on the glass slab.

Or better still use a palette and palette cup. Pour a little of the paint into the cup and work out your brush on the palette.

Always wash the paint off of your palette with gasoline when you have finished a job.

Now you can use your yard stick, or mahl stick, for a rest. Hold the lower end of the stick and the paint can in the left hand and rest the other end of the stick on the window. Now rest your right hand across the stick to steady it while you paint the letters. You can tie a small piece of chamois skin or cloth around the ball of the mahl stick to keep it from sliding.

If you have an opportunity to watch a good sign painter at work it will help you a great deal to observe how he uses the mahl stick and brush.

Try to keep your brush strokes straight and smooth and make the body of the letters all the same width. Amateurs usually have a tendency to make each succeeding letter a little lighter or a little heavier than the ones before.

If the sign is small you may be able to do all the lettering before you will need to rub on the aluminum.

You should empty the aluminum powder into a tin can with a tight lid and carry it that way.

Now take a piece of cotton cloth and fold it up to make a buff, then while the paint on the window is still tacky dip the cloth in the aluminum powder and rub it lightly over the lettering. (If you wait too long the powder won't stick good, and if you

rub it on too soon you may smear the paint; after a few trials you will be able to tell when the size is just right.)

The aluminum will adhere to the size, and the yellow or other color will be entirely covered, the result will be a bright silver-colored sign which will never tarnish.

To get a good smooth Egyptian letter, especially in small work, draw your straight strokes right across the chalk line with no attempt to square the ends, then after the aluminum is on snap the lines again and cut the ragged strokes square to the line with a Gilette razor blade.

Some painters use gold bronze on the outside the same as aluminum, but I advise you not to do it. The bronze is merely fine ground brass and will soon tarnish or turn black when exposed, while aluminum, on the other hand, will remain white for years.

Now, when the aluminum is on, you may proceed to outline or shade the letters, whichever you prefer to do. Outlining is more difficult, so a beginner might use a shade instead.

Mix a small quantity of the color ground in oil, with Spar Varnish, and keep your brush worked out flat as before; if the paint is too stiff to work well you may add a few drops of linseed oil, turps, or Japan.

If you outline the letteers use a small brush and keep the outline narrow; but if you shade them you may use a larger brush, No. 8 or 10, and make the shade quite wide. See Fig. 7 for shade explanation.



Red and green may both be used on an aluminum sign with pleasing results if you follow directions given in the chapter on color combinations.

The price of an aluminum window sign ranges from three dollars for a small job to \$10 for a large job.

Transparency signs are worth twice as much for the same amount of lettering.

When you are able to put on a good aluminum job you will have but little trouble in doing a transparency sign.

Transparency signs are usually made along the upper or lower edge of the window, and a solid background is painted around them.

Black and white are the easiest colors to apply, so I shall describe the procedure for painting a black background with white lettering. When you can do this properly other colors will give you no trouble.

First mark out the sign very carefully on the outside of the glass. The half block alphabet is easiest to handle here at first as the letters are made up entirely of straight lines. Use chalk or keremic crayon for making the layout.

Now mix some Lamp Black (Ground in Japan) with about one-third as much Prussian Blue, thin with turpentine and japan gold size. Beat this paint up well and it will make a beautiful black which will cover smoothly and be very opaque (meaning not transparent).

Now you are working on the inside of the glass and the lettering will appear backwards to you. Take a camel hair pencil as before, only you must paint around the letter instead of on it. Cut in all the letters and paint everything but the letters solid black to the line you have made on the window for the edge of the sign. If you use coach color it will only take a few hours for the black to dry thoroughly; but if you should use oil color it should be mixed with Japan dryer and you will have to wait till the following day for it to dry.

When the black is thoroughly dry mix some white lead with varnish and linseed oil and paint the back of the sign white, lettering and all. Use a large brush and paint only a small part at a time; then take a piece of folded cloth formed into a ball or buff and pounce it up and down on the fresh white paint, then paint another portion and pounce it. The paint must be stippled in this way immediately after it is brushed on and before it has time to set. This will give the paint a stipple finish and no brush marks will show.

The white letters will show up well from the outside and they will be transparent enough for the light to shine through.

If you wish to put a gold stripe along the edge of the sign this should be done first.

Mix a little gold bronze (striping bronze is best) with Nonpareil Japan and draw the stripe with a striping pencil, which has longer hair than a lettering pencil. Then rub more of the dry bronze on it, just as you rub aluminum on outside work. This is not as good as gold leaf but it will not tarnish on the inside of the glass.

There are some ready mixed, and ready to mix, gold compositions on the market, but I have never

found them as satisfactory as dry striping bronze and Japan.

A transparency sign will last longer if it is varnished after the paint is dry.

One of the great accomplishments of sign painting is to pull your brush with a smooth, confident stroke, and get away from dabbling or hesitating work. Always wash lettering brushes in kerosene or gasoline before and after using, and keep them greased with lard oil or vaseline when not in use.

By making a preliminary sketch or two it is possible to make a good layout of almost any copy or wording.

Hand lettering need not be as perfect as type but it should be far more artistic.

Don't go to extremes in modifying letters, but it is a good idea to break the stiffness of standard styles once in a while by some suitable modification.



Cloth and paper signs are usually called banners, and either oil or japan color may be used in painting them. In either case the colors should be mixed with varnish and gasoline and kept quite thin.

Some of the instructions given for show cards and window signs will also apply to paper, muslin and oilcloth work.

Use poster paper or sign mustin (this has a

HOW TO PAINT SIGNS AND SHO' CARDS

special finish for lettering), tack it on the wall at the proper height to work conveniently.

Snap the guide lines with charcoal, and mark out the lettering with a piece of white chalk which will barely show. Then you may correct it with a stick of charcoal and you are ready to paint.

The Natural Stroke alphabet is easily made with a flat red sable show card brush; the brush should be held at an angle so that the wide stroke of the letter is only about two-thirds as wide as the brush, a slight pressure gives the swell effect at the top and bottom.

With a good brush and a little practice you can render these letters gracefully and rapidly.

This alphabet is suitable for both banners and show cards and can be made with a good round show card brush or lettering pencil, but the flat show card brush works best especially in oil colors.

I prefer the short handle flat black sable banner brushes made by Devoe for large lettering. There is also a blue handle German ox hair flat, on the market, which is very good.

All of these brushes require breaking in and are much better after they have been used a while than when new.

Camel hair brushes are also used, and are very good for oilcloth signs.

Most men work free hand on banners, you may use your left hand for a rest or even a mahl stick on small lettering.

Before you snap the lines on oilcloth take some whiting and a cloth saturated with gasoline or turpentine and rub the cloth all over, this kills the

ROUND BLOCK OR "GAS PIPE"

oily glaze which would keep the paint from adhering properly.

Oil cloth comes in 48 and 52 inch widths, and the sign sell from \$2 to \$3 per yard.

Sign painter's muslin costs about 25 cents per yard; it is 36 inches wide and comes in rolls of 60 to 100 yards, or you can purchase it in smaller quantities at department stores. You can put a small shelf on the wall at the proper height, and by putting a piece of gas pipe inside the roll of muslin you can unwind the cloth and use it as needed, and by marking off the wall in feet and yards you can save time in measuring the cloth.

Poster paper for sign purposes is like white wrapping paper and comes in widths from 30 to 48 inches wide.

Muslin signs are worth from \$1.35 per yard on up. A mounted muslin sign is worth \$2 a yard and up. Cut-in work and signs with pictures or a great deal of lettering are worth considerably more.

Frames for muslin and oil cloth signs are made of 2-inch strips of lumber laid flat and fastened together at the corners with strips of tin or light iron and blocks of wood.

Absorene or other wall paper cleaner can be used when it is necessary to remove the charcoal and chalk lines from a sign.

When you desire to make a long curved line on a sign you can drive a tack at each end of the line, then tie a piece of string to the tacks and let it sag to make the proper curve. Now make a mark along the string with a stick of charcoal and you have it. (You can buy prepared charcoal sticks from paint houses and art stores.)

Or better still you can take a good piece of 1x1 inch lumber and bend it to mark out your long curved lines.

Smaller curves can be made by tacking down one end of the string and tying a piece of crayon at the proper place to make the curve when pulled around the circle with the tack as the center.

Here is a good suggestion for plain muslin signs: Large lettering red with light green cast shadow, small lettering dark blue; scroll or border, if used, light green. The green should be very light in color, about one part green to six or more of white.

For painting on heavy canvas or awnings use a stiff brush, ox hair is best, mix dry lamp black with shellac and thin with alcohol this color will not spread in the canvas. (Use alcohol to clean the brush.)

If it is necessary to paint canvas with oil color, stretch the cloth and wet it, thin the color with linseed oil and paint while the cloth is damp.

But the above shellac method produces much neater work.

Varnish is a very important article to the sign painter, and it might be well to give a brief description of the different kinds which are used most.

The most perfect varnish* known as a Chinese secret preparation, used by them for thousands of years; it was as transparent as glass and practically indestructible; unfortunately, even the

^{*} See Chapter on Lacquer on page 84.

SINGLE STROKE KNOCK OUT ALPHABETS

abodetighijklm nopqrstr

SINGLE STROKE ROUND FULL BLOCK

It was customary not many generations ago for painters to mix their own varnish, but it is now more convenient to buy the prepared article. Varnishes are mostly made from vegetable gums with a base solvent of volatile oils (turpentine, etc.), alcohol, or a fixed oil base solvent.

There is an almost unlimited number of different varnishes, and usually each kind is especially suitable for certain purposes.

Following is a brief description of the best known and most useful varnishes for sign painter's use.

Outside Spar or other good Spar varnish is the best all-round article; it is quite durable and is used for varnishing over gold leaf or other inside window signs, or it may be mixed with colors for outside window work, and is used for practically all outside varnishing.

Quick Rubbing Varnish is also much used by sign painters; it is frequently mixed with colors because it works easier with a brush than Spar Varnish.

Copal is a high-grade varnish. The base solvent is mostly linseed oil, which makes it very durable. The light colored grades are best and most expensive in this and other gum varnishes. Some Copal dries brittle and should be mixed with a more elastic varnish.

Damar is a colorless, elastic varnish, very good for stipple center gold work, etc. It is quick drying but too soft for most purposes. Don't use it for furniture or exterior work.

Hard oil varnish is quick drying and is principally used for cheap interior woodwork. In emergencies it can be used for backing up gold or for other purposes where a quick drying varnish is required.

Floor varnish is very hard and durable and can be used same as Spar Varnish. Varnish should not be thinned as a usual thing, but if it becomes necessary you may warm the varnish and stir in turpentine. Let the varnish set for at least an hour and stir it several times before using.

Varnishes and paints should be kept in tight cans and instead of using direct from the can pour out the desired quantity into another can and use it, thus keeping the original can closed and in good condition.

Shellac is a gum soluble in alcohol only. It is very quick drying, and is used for stopping suction before gilding on wood, for covering up red and other colors to prevent bleeding when repainting, and also for finishing some kinds of wood-work. It should be kept thin with alcohol.

Asphaltum is a varnish made of mineral gum. It is black and semi-transparent and dries very fast. It has many small uses for the sign painter, but its chief use is for painting iron. There are two grades, T and B. T is mixed with turpentine and B with benzine. T is the best grade.

Asphaltum should be thinned with turpentine or gasoline.

For glazing, where a very hard finish is neces-

sary, a little quick rubbing varnish should be added.

Never mix it with oil as it won't dry.



The painting of boards or brick walls is vastly different from sign work on glass, and entirely different brushes are used.

Bristle and fitch brushes are usually used for walls, and colors are mixed with turps and linseed oil instead of varnish.

Before painting a wall be sure just what lettering is to be on the sign, and decide just what space each line is to fill, and just how the lettering is to be arranged to give the best effect.

Different men often make different layouts. The principal point is to make the part of the sign which is most important in large letters, and keep the sign well balanced.

By counting the bricks it is easy to decide just how wide to make your letters.

You can usually make your line of lettering follow along the brick courses, and save marking top and bottom lines. Wall signs usually have cut-in lettering. The wall is first given a coat of white, then the letters are "spotted in" or painted roughly with white or other light color, then they are cut in with the dark color, and the background is filled in.

Black and white are usually used on plain, small or cheap signs.

Use white lead ground in oil for the white, and dry lamp black mixed with oil and thinned with gasoline for the black.

For cheap repaint work etc. the first coat of white can be omitted and the letters spotted on the wall with white and cut in with black.

The average sign requires at least several times as much white as black paint, because the white doesn't cover as well. White lead comes in kegs of 12½ pounds or more.

On cheap walls the paints are thinned with benzine instead of oil and turpentine.

Benzine and gasoline are often referred to by painters as "benny" or "gas;" they are used for the same purpose, and either one can be used. They are used as a cheaper substitute for turpentine—often referred to as "turps."

In painting a raw wall the first coat of white lead is usually thinned with half boiled oil and half gas, and the second coat with gas only.

On repaint jobs don't use linseed oil but thin both coats with gasoline.

Plain work on brick walls is worth 10 cents per square foot and up, while colored pictorial work is worth two or three times as much.

Most painters refuse to paint any kind of a wall

BULLETIN ROMAN

TUSCAN ROMAN—PLEASING EXTREMES IN LIGHT AND HEAVY FACE NUMERALS.

sign even from a ladder for less than five or ten dollars, no matter how small it may be.

"Falls" hanging from the top of the building are used for large or high wall signs, but the smaller signs near the ground may be painted from a ladder.

Always use your white brushes for white only, as black cannot be removed from a brush so thoroughly that it won't discolor the white.

A bulletin painter doesn't dip his brush in the paint and drag it across the edge of the bucket, but taps the brush back and forth on the inside of the bucket to get rid of any overcharge of color.

Always keep your letters close enough together to avoid a scattered appearance, and leave enough margin or border around the outside of the sign to prevent a crowded appearance.

Never paint brick walls with color ground in Japan.

Sable, camel hair, badger, or ox hair brushes may be used for lettering on wood.

In painting raw boards, the first coat should be boiled linseed oil with a small amount of white lead added, second coat white lead thinned with turpentine and oil, and third coat of color thinned with turps only. This gives a good flat surface for lettering.

On repaint jobs the first coat may be omitted and other two coats given as prescribed above.

For a cheap board sign some painters mix varnish with the last coat of paint, then when the lettering is on and dry, rub the board with some 76

furniture polish in a cloth and it will have a varnished appearance.

In lettering on a varnished surface if the paint won't adhere properly, rub the surface with a cloth dampened with turpentine or gasoline to kill the glaze.

In applying aluminum bronze to size on a painted or varnished surface, it is usually best to apply the powder with a soft brush instead of a cloth, otherwise the aluminum is likely to adhere to the background and make the sign look cloudy.

Or where the surface is very tacky, mix aluminum powder with zinc white ground in oil and rubbing varnish. Thin with turpentine if necessary and apply as a paint, instead of lettering with the Japan size and rubbing the aluminum on afterwards.

You can mix aluminum with bronzing liquid or Japan dryer and letter with it, but the paint described above will cover better.

Avoid standing too close to the sign, stand back where you can see what you are doing and get a command of your work. Also avoid standing to one side of your lettering, but stand squarely facing the sign while working.

Good board signs, except smalted work, should be painted with Japan colors and then given a coat or two of spar or finishing varnish. Cheap signs, such as real estate boards etc. are painted and lettered with oil colors and not varnished.

Nothing is more important to the sign writer than the quality and condition of his materials.

It pays to use the very best brushes and paints,

For the benefit of some who have had less experience I shall give a list of the brushes and paints which I carry in my kit.

For window signs or glass work the Grumbacher camel hair quills are very good. Sizes 4, 6, 8 and 10 makes a fair assortment. For fine work I cut some of the hair out of a No. 4 or 6 thus making a pencil of any size to suit the work at hand.

For single stroke text lettering a short haired pencil works best, while for finished letters I prefer the longer hair. The gray camel hair (or squirrel hair) pencils have more spring and life than the regular camel hair brushes.

For lettering real estate boards the flat red sable show card brushes are very good.

I have seen sign painters use the round red sable rigger brushes for board, muslin and glass work. The very small riggers are good for outlining and for detailing pictures. A larger size with extra long hair is fine for cutting in with heavy color on small signs etc.

But outside of those uses and show card work I have never found them as good as a camel hair pencil, and they are far more expensive.

Use the right brush in the right place, wash it out well as soon as you are through using it, then grease and shape it with lard oil and lay it away.

You can use one brush for a great many sizes and styles of lettering, but the stories of men who do auto monograms and hairline striping with a four inch wall brush are grossly exaggerated.

The large tubes of Watson's Decorator's Oil Colors are very good also his Permanent Vermilion in pound cans is a favorite of mine.

For the Japan colors Wallbrun-Kling's tubes are the best I have found.

I usually carry some aluminum and gold bronze powder, a small can of Valentine's japan gold size, some spar varnish, turpentine, boiled linseed oil, lard oil and some gasoline.

The above colors and brushes, a mahl stick or straight edge, chalk, chalk line, a few razor blades, a 1½ inch size brush (camel hair) gilding tips, alcohol heater, a size cup and a pack of gold makes a very complete outfit.

Always beat your color up well and keep it thinned so that it flows freely from the brush. You can't pull a smooth stroke with color that works like putty.

By spending five minutes beating, straining and thinning the colors you can avoid a great deal of trouble and discouragement.

By all means take pride in your tools and your work, and try to learn one new thing each day.

Goldrex Japan made by the Morgon Co., makers of Morgonite Finishes, is a very durable gold size and suitable as a dryer and binder for all colors. The same company also makes "Tuflastic," a durable varnish, suitable for sign work.

For new tin or new iron signs, first wash the sign with gasoline or naphtha. When thoroughly dry, apply one or two coats of red lead. This will prevent peeling and corrosion.

READY MADE LETTERS

Following is a discription of the principal kinds of ready made sign letters.

Wood letters for fastening on boards or wire screen come in perhaps a dozen different sizes and in many different styles.

The face of the letter is usually gilded with gold leaf when used. You can get price lists on these letters from Spangler Bros., Newark, N. J.

The gold and silver colored ready made foil letters are used on glass only. They come in sizes from 2 to 12 inches high, but the smaller sizes, 6 inches or smaller are used almost exclusively.

The lines for the lettering should be chalked on the outside of the glass and the letters applied on the inside of the window.

They are applied with varnish thinned with kerosene, gasoline or turpentine. Different men prefer different mixtures, some use 4 parts kerosene to 1 part Spar varnish.

But I prefer a mixture of equal parts quick rubbing varnish and turpentine. This makes a very permanent job and overcomes the faults of most other mixtures.

Great care should be taken to squeeze out all the air bubbles from under the letters before they are dry.

Thes letters can be purchased from The Metallic

Letter Co., 433 No. Clark Street, Chicago, Ill., or N. Glantz, 289 Bowery, New York. Most of the painters' supply houses in New York carry the letters in stock but only some of them do a mail order business.

Delcalcomanie letters are often used for making auto monograms, and many large companies furnish Delcalcomanie window signs to retail dealers; directions for applying are printed on the back of the sign. The monogram letters may be purchased from the Globe Delcalcomanie Co., Jersey City, N. J.; full directions accompany the letters.

The other two principal kinds of ready made letters are white enamel and gold glass window letters. These are made in many sizes, but the 2 to 6 inch letters are used most.

Practically all ready made letters come in upper case or capitals only.

Gold glass and enamel letters are applied on the outside of the window with a cement made of dry powdered white lead, white lead ground in oil, and Spar varnish.

Mix the cement well by kneading and keep it very thick and the letters won't slide down the window.

Arrange your letters on the floor or table and see how much space they will require, then make lines on the window and apply the cement around the edge on the back of the letters with a paring knife. Have a perpendicular chalk mark through the center of the window or the center of the sign.

Now begin applying the letters in their proper



NOTE:—JEWISH LETTERING READS FROM RIGHT TO LEFT. THE LETTERS B. K. P. AND T. ARE ALSO USED WITHOUT DOT IN CENTER. THIS MODIFIES THE PRONUNCIATION. THE FIVE FINALS ARE USED AT ! HE END OF WORDS ONLY.

HOW TO PAINT SIGNS AND SHO' CARDS

places, putting on the center letters first and working out both ways, keeping the space between letters well balanced.

Now when the letters are all on, wipe off the surplus cement and the chalk lines and the result will be an attractive and well balanced sign.

If you have trouble with the letters sliding down the window buy some bees wax, soften it by heating, and stick small pieces under the letters, this will hold them until the cement hardens.

Old letters can be removed from the window with a paring knife or a thin flexible putty knife.

Sometimes the cement gets so hard that it is almost impossible to take gold glass letters off without breaking them. In this case take a small bottle of sulphuric acid and a glass rod or fountain pen filler and place a few drops of the acid on top of the cement behind the letter; this will eat down through the cement and soften it.

Be very careful not to get the acid on yourself or your clothes as it will eat there also.

Do not try to use the acid on white enemal letters as it will act on the copper and the heat might crack the window.

Plain white enamel window signs sell for six cents an inch and up. Thus you would charge your customer 30 cents each, for 5 inch white enemal letters. This is the minimum price; many shops charge more, and prices on the letters are still advancing. Script enamel signs are made up to order and cost several times as much as the block letters.

Gold glass letters sell for twelve and one-half

or fifteen cents an inch. Thus 6 inch letters sell for 75 to 90 cents each, or 2 inch letters 25 to 30 cents each.

You can get wholesale prices on enamel letters from the Manhattan Dial Mfg. Co., 38-42 Lexington Ave., Brooklyn, New York

Lacquer

On page 67 I mentioned a Chinese secret varnish that was the most durable wood finish ever known. During the past few years chemists, scientists and paint manufacturers have been perfecting a new finish known as Pyroxylin Enamel or Lacquer. The best grades are more durable than any paint and it has the great advantage that it dries almost instantly.

Pyroxylin, which is a substance formed by nitrating cotton, is somewhat similar to celluloid or collodion and has been used, in a small way, for a number of years. It was first applied to automobiles about five years ago. Today practically every car on the market is finished in Duco or some other form of Pyroxylin Lacquer.

Sign painters are also adopting this new material and in a few years it may take the place of oil and Japan colors, for most kinds of sign work; just as it has replaced these older finishes for motor cars. The gun lacquers, which are made for spraying, are more durable than the brushing lacquer. It works best on clean surfaces such as new wood, or new metal, and cannot be applied over ordinary oil paint because it is a strong paint remover and will blister up the old finish.

Clear lacquer is applied to brass finished bedsteads, lighting fixtures, etc. It keeps the gold bronze from tarnishing. It can also be used in an air brush, or spray gun, for coating water color show cards. This thin coat of clear lacquer makes the show card color waterproof and such signs can be used for outdoor purposes.

Lacquer sign methods have been employed in the West for over two years. Hundreds of shops are doing work that way and the method is being gradually adopted in the East. Painters are constantly finding new uses for this material. I have devoted almost three years to using, and experimenting, with Pyroxylin and can confidently predict a lacquer era for the near future.

Brushing lacquer is very good for backing up gold leaf signs on glass. It dries quick and hard. You can use either your oil color brushes or show eard brushes in lacquer; but in either case be sure to wash the brush in lacquer thinner before and after using.

The yellow brushing lacquer works very nice under a brush for backing up gold, and the color helps to hide any pin holes or defects in your gild. Scratch a fine line in the gold (As described for paint on page 95) then wash off the surplus gold before trimming off the letters, instead of afterward.

When the loose gold is all trimmed off you can see the pin scratch right through the lacquer, which will enable you to trim the letters very neatly. For shades and outlines use Japan colors, as usual, and varnish the sign when complete.



As mentioned before, brushing lacquer is not as durable as gun lacquer and needs a coat of varnish to protect it and the gold. But brushing lacquer is harder and more durable than ordinary Japan colors. The gun lacquer as used on metal signs is much harder than any varnish and needs no finishing coat. Also with lacquer it is easier to make light lettering on a dark background than the old way of surfacing on letters. By spraying the background on, all laps and brush marks are avoided.

I have even used brushing lacquer as a quick size for gold; by adding just a few drops of castor oil to the lacquer you can slow it up enough for the purpose.



Gilding is one of the oldest known arts, it has been practiced for over six thousand years.

For beginners I describe the regular sign painter's procedure for gilding on glass. Following is the list of materials you will need beside the list given under window signs.

Gold Leaf: This comes in books of 25 leaves,

31/4 inches square with sheets of tissue paper between the leaves. It costs about 75 cents per book.

The gold is much thinner than tissue and it would take thousands of leaves of the gold alone to make a pile one inch high. It is very delicate and cannot be handled with the fingers. Handle the books carefully and do not allow anything oily to touch the gold.

Next you will need a gilder's tip for handling the gold. These are thin camel hair brushes mounted in cardboard; they are about four inches wide and the hair is about two inches long.

Handle the tip very carefully and keep it away from your paints. It costs about 35 cents.

A water size brush $1\frac{1}{2}$ or 2 inches wide is made of soft camel hair in wood handle; cost about one dollar. Never use this brush in paint.

Now the remaining list of necessary material can be purchased at any drug store.

No. 0, or four grain, empty gelatin capsules, 10 cents.

Absorbent cotton, 10 cents.

Powdered whiting, 10 cents.

Some grain alcohol.

(Avoid the use of wood alcohol as it is likely to cause blindness.)

Most painters use an alcohol heater for boiling water size, or you can boil it on a stove.

Now this is the way to proceed on your first window job in gold.

Draw your entire design carefully on the outside of the window with chalk or Keremic crayon.

For very small designs draw the layout on a piece of paper and make a pounce pattern of it.

Wash the inside of the window well with whiting and water or Bon-ami and water, polish it off carefully, then flow clear water all over the space with your size brush this will carry off the dust specks etc. now be very careful to keep the window clean and don't touch it with your fingers.

Next take a perfectly clean vessel and put in one pint of clean water—distilled water is best—then put in three or four No. 0 size gelatine capsules, or a piece of fish glue the size of a nickel coin, and put the can on stove to heat, allow water to come to a boil and boil for five minutes, then strain through clean cheese cloth.

Now apply this freely to the window with your size brush, beginning at the upper left hand corner (if you are right handed) of the layout and size only a part of the design at a time.

Take a piece of stiff cardboard slightly larger than the book of gold and lay the book on top of it. Hold this in your left hand.

It is hard to lay whole leaves of gold, so fold the tissue paper cover back half way and cut the gold leaf in two with the nail of your little finger along the fold of the paper.

This is done with the right hand which also carries the gilding tip.

Now rub the gilding tip across the hair of your head and pick up the gold with it, then carry the gold to the wet window and as soon as the gold touches the size it will jump from the tip to the glass. Don't allow the tip to touch the glass.

Leaf the window solid where the design is to be. Keep the window wet ahead of your work, but don't allow the water size to flow over the gold which has just been laid or you will wash it off.

Allow the leaves of gold to lap about a quarter of an inch over each other. Don't be stingy with your gold but allow a margin around the space where the design is to be.

Now when the gold has dried good and bright, which may take less than an hour or maybe even longer, depending on the weather, etc., you should take a piece of soft absorbent cotton and brush off the loose gold, then burnish by rubbing the gold briskly but very lightly with a clean wad of cotton.

(I use an electric hair dryer—a small combination fan and heater which can be purchased at any electrical store—for drying gold and am able to do window work rapidly in the coldest weather, providing there is an electric socket anywhere for connecting up the machine.)

Now you will see many holes and imperfections in your gild, so give the whole design another coat of water size; don't brush it too much this time or you may rub off the gold.

Now apply small pieces of gold to the holes or "holidays" and allow the gold to dry again, then brush off loose gold and burnish as before. Sometimes even a third gild is necessary.

After the holes are patched and everything is dry go over the back of the gold with hot water or hot size; this is called washing and it gives the gold a high burnish.

Now when the gold is dry again, back up or

have ever used.

You can use a straight edge and a pin or needle to scratch the top and bottom line for each line of lettering on the gold.

After the back up color is dry trim the ragged ends to the line with a Gillette razor blade, then take a piece of cotton, wet it in a pan of water and after going over the gold with this take a dry wad of cotton and wipe off the surplus leaf. Use straight strokes beside the straight letters and rub with a rotary motion in the round letters.

After this is done take a damp piece of chamois skin and rub off the small clouds and particles of gold that still adhere to the glass. A small mirror reflected on the back of the letters will enable you to see small particles of gold without going outside the window.

Next shade or outline the letters with Japan color and when this is dry the sign should be varnished with a good exterior or water spar varnish, allowing the varnish to extend slightly beyond the paint all around.

One color gold window lettering is worth about 15 cents per upright inch, thus you would figure 4 inch letters at 60 cents per letter. Two color gold work is worth 25 cents per upright inch.

No matter how small the job may be it is not worth while to do a gold window sign for less than six dollars.

Silver leaf may be used same as gold leaf only

your water size should contain about twice as much gelatine, and you must use a badger or ox hair tip instead of the camel hair. The tip may be wet in the size to pick up the silver better.

Never use silver leaf or lemon gold on wood or exterior work. They will turn black when exposed to the weather. Aluminum leaf is used instead of silver for exterior work, but it cannot be laid on glass with water size

During the past four years I have been doing commercial work in New York, St. Louis, Denver and Los Angeles and have studied the gold work in every city of any size between these points.

The methods used for gold window lettering in these cities are quite different, and a description of how the other fellow does it might be interesting and even profitable to professionals as well as amateurs.

The following does not mean that the methods described are used exclusively in these localities, but that they are most generally used.

In New York the lettering is marked out with a red grease crayon, then after cleaning the glass rub water with a very small amount of whiting all over the space to be lettered on the inside of the window. This leaves a slight film on the surface so that you can paint a center in the letters with clear Japan gold size, or dead center varnish, and the brush strokes will show plainly.

When this is dry rub off the whiting and gild with water size and XX gold, then back up the same as a one color job but you have a two color effect. Such jobs are usually outlined with prussian blue.

Some painters even use oil blue mixed with varnish and do not varnish the job afterward. A blue outline is considered the proper thing with gold in the East, while a black shade is used most in the West.

In Baltimore, Washington, D. C. and some other cities they formerly used a varnish outline instead of a varnish center as in New York. You can mix a drop of lemon yellow or white in Japan with your varnish so you can see the brush strokes, instead of rubbing whiting on the glass.

Some painters outline their letters first with Japan black and then lay the gold. However I have never found this method fully satisfactory except for second story office windows, etc. where a few defects in the gild wouldn't show.

In St. Louis they lay the deep gold with water size, back up the outline and clean off the surplus, then lay the pale gold center on quick size and outline or shade the letters with coach color painting back of the letters at the same time and then varnish the entire job.

In Denver they use the same method, only the centers are more frequently laid with water size on top of damar varnish (with a few drops of quick rubbing added) the varnish center is stippled with a fitch brush before it dries giving it a very rough pebbled effect.

In Los Angeles most of the high class work is two color gold without any painted shade or outline. They pounce the design on the outside of the glass then go inside and gild solid, pounce the design on back of the gold and back up a hairline outline. Next clean off the surplus and lay the pale center on quick size made of quick rubbing varnish slightly thinned with turpentine then varnish and that's all. (Some of the shops do give the back of the letters a coat of aluminum.)

Most of the good work is in the form of a trade mark or name at the edge of the window and is usually very small.

A Roman or Script letter is easiest for two color gold work while a light faced Egyptian letter with a heavy black shade is usually neatest and most practical for a large amount of lettering in one color gold.

The most popular way to back up on one color gold is to scratch a very fine line on the gold for top and bottom of letters with a sharp pin or needle and a straight edge. Back up single stroke style with smooth free strokes letting straight strokes run over the scratch and trimming the ends with a razor blade before washing off surplus gold.

A red or white china marking pencil or sharp piece of chalk dampened with the breath is much better than the old black crayons because these colors can be seen better through gold.

When crayons will not mark properly on glass, pounce the surface well with talcum and the grease crayon will work fine. (Talcum will also keep aluminum from sticking to an unwashed window.)

For all small gold jobs it is easiest and quickest to gild solid, whether the design is to be one color or two color gold.

For outlining or small work it is advisable to add

some spar varnish to the back up color to give it a pull.

Some painters back up gold with yellow in Japan so the pin holes won't show.

The most beautiful two color gold window sign I ever saw was outlined with a wide black outline and a very narrow red line around that, this is much more effective than two outlines of the same width.

For gilding on wood or metal or on the outside of windows, mix Nonpareil Japan with just a little yellow color and letter in the regular way; when this has dried until it has only a very slight tack, apply patent gold leaf, rubbing it on lightly through the tissue.

Patent gold is mounted on tissue paper for gilding in the wind.

After the sign is gilded burnish the letters lightly with a wad of cotton and outline with color.

Ordinary loose gold leaf can also be used for surface gilding, but it takes more practice to lay it properly.

In making large smalted gold signs the lettering should be marked out on the board and given a coat of shellac, to stop suction. Then the letters are sized with quick size or fat oil size.

Fat oil size is specially prepared from aged linseed oil and dries to gild in from 12 to 48 hours.

After the letters are sized and gilded they are cut in with lamp black in oil mixed with about one-third white lead and thinned with boiled linseed oil. Then lay the board flat and sprinkle the smalts on while the paint is wet. Smalt should be a quarter inch deep.

In throwing off surplus smalts do it with a quick toss of the board. If the board is tipped up and the smalts allowed to slide over the gold it will scratch it and spoil the appearance of the sign.

To paint auto monograms, first make a pounce pattern of the design, then rub a raw cut potato on the place to be lettered to prevent the gold from sticking to the varnish.

Now pounce the pattern on both sides of the car. Mix a small quantity of tube yellow with Nonpareil and paint the monograms. When the size gets well set with just a little tack, apply the gold leaf. Brush off loose gold and outline with color. Charge \$3 and up for monograms.



For producing show cards, signs or window backgrounds in quantities of 25 to 1000 of a kind the tieless stencil or silk screen process is the most practical method known.

You can reproduce any size of a design from a post card to small bulletins in one or more colors.

There are dozens of methods for doing this work, I have tried most of them and as the space is limited I shall describe only the simplest and most practical method in use to-day.

Silk bolting cloth of the kinds most used costs from \$3 to \$7 per yard, the regular width is 40 inches, the finer the mesh the more expensive the cloth. Don't try to get along with cheese cloth or other cheap stuff, such material always causes trouble, the best is cheapest in the end.

For attaching knife cut stencils of paper or celluloid, the coarse or No. 1 cloth is used. When using liquid celluloid, or the shellac process which I describe, No. 7 or 8 is about right for all kinds of rough or large work, use No. 12 for small signs and show cards. For fine work such as calenders etc. No. 16 is used, it costs \$7 or \$8 per yard.

Use No. 7 or 8 at first as it is easier to use than the fine mesh silk. You can buy Bodmer bolting cloth from Kressilk Products, Inc., 71 Murray St., New York, N. Y.

Now to give you an idea of the process as a whole before going into details. The design that is to appear lettered on the sign is cut in on the bolting cloth, which is stretched on a frame, then lay this on your blank card. Now rub the color across at the same time forcing some of it through the openings with a heavy squeegee this makes the sign on the blank card.

For coating blanks a solid color, simply leave the screen open after stretching on the frame, and run the color with squeegee same as when reproducing a design.

NOTE: "Cut in" means to paint background around the lettering.

HOW TO PAINT SIGNS AND SHO' CARDS

You should make a seperate stencil for each color where the various colors are scattered all over the design. But where the top lines are black, the bot tom red etc. you can cut a notch in the squeegee and run two or more colors at a time.

There is a method of running several colors with one screen by painting out the different portions of the screen after using, but this method is patented.



There is a sensatized screen process which is too complicated for ordinary work. Some shops fasten a knife cut stencil of paper or celluloid to the cloth with a cement, such as is used to patch moving picture films, or with shellac.

One of the best methods is to use liquid celluloid or pyralin for cutting in on the screen.

Every method has its advantages and disadvan-

You will meet many men who claim to have an original method that is a great improvement over all other processes, but don't pay anyone a big price for a secret method, for the chances are a hundred to one that it will turn out to be one of the methods I have just mentioned.

It takes some practice and experience to do process work successfully, and you are almost certain to have trouble until you learn just how thick to use the paint and all the other little tricks.

Make a good solid frame out of 2 x 3 inch lumber, fit the corners tight and be sure it is square and will lay perfectly flat on your board, or whatever flat surface you use, then reinforce the frame with corner irons.

The frame should be several inches larger inside than the signs you wish to make. There are special frames for tightening the silk with thumb screws, and if you can afford one of these complete units I would advise you to use it in preference to a home made outfit.

Stretch the bolting cloth on your home made frame, just as an artist stretches his canvas, the cloth should be very tight and tacked to the back edge of the frame. If you get the screen dirty or finger marked in stretching wash with hot water or alcohol.

Now take your original sketch or sample sign and lay the framed screen on it face down, with the cloth against the sketch. Trace the design on the cloth with a lead pencil. Then raise the frame and remove the original design, block up the frame so that the cloth doesn't touch the table and cut in the design. By having a small electric lamp under the frame you can see your own work and detect pin holes better.

For cutting in mix one ounce of dry English Drop Black with a pint of good orange shellac and a teaspoonful or more of castor oil. A small red sable brush is best for cutting in, wash the brush with alcohol when through. If the color gets too thick thin it with a small quantity of alcohol and a few drops of castor oil. Keep this color tightly corked and it will improve with age.

The frame should be lined with strips of strong paper around the edge, for instance take a 4 inch strip and double up one inch to glue to the frame and glue the other portion to the screen. (Or flat strips of paper can be glued on the face of the screen to lap over the edge of the frame.) In either case shellac the paper afterward. Without this paper strip your screen is almost certain to leak color where the frame and silk meet.

If pin holes appear in the screen while working simply touch them with a drop of the shellac color which will stop the leak.

Now you need a rubber squeegee, you can make it from a strip of medium hard rubber packing 1/4 inch thick and about 3 inches wide, any length desired, and mount the rubber in some strips of wood. Or you can buy a better one ready made from a supply house.

You can buy the paste colors ready prepared for process work or you can mix your own. For most

To stop oil runs on paper signs mix a little gloss oil with the color.

Another process paint formula is, for each pound of color (ground in oil) add 5 oz. of corn starch, a tablespoonful of turps, ½ teaspoonful of glycerine and a little over a teaspoonful each of boiled oil and gold size.

Be careful not to get your color too thin, only experience can teach you to get it just right. Always strain color before using.

Place the card, or whatever sign you are making, under the frame (which should be hinged to the board with pin hinges to be easily taken off), spread the color on the end fartherst away from you and pull it across the screen toward yourself with the squeegee.

Lift the frame and remove your first sign, put another blank in its place, scoop up the color and carry it back to the further end with your squeegee and pull it across toward you just as before.

It takes practice to get just the right pressure on your squeegee to get a uniform impression all over the design. Some men work opposite to the above and force the paint through the screen as they push the squeegee away from them.

You can fasten some small strips of card on the board to get your design to register properly and keep the sign square with the frame.

You will need drying racks to place the signs in as you print them. These racks can be made of

wood frames and lath, or you can stretch wires back and forth for shelves instead of using lath. For card signs you can use paper clips and hang them on a wire or clothes line.

And now regarding prices to charge for this work. It is worth about \$5 to make the design and cut in the screen for a quarter sheet card (11 x 14 inches) and it is worth about \$10 per hundred to run such signs, this allows you a fair margin of profit on everything.

It is worth \$10 or more to design and cut in a simple full sheet design, pictorial work is worth more. And it is worth about \$25 per hundred to run cards of this size.

These are approximate prices for simple work, where the copy is difficult and several colors are used the prices may run considerably higher.

After you are through using the screen scrape off the paint with a piece of cardboard, then wash it well on both sides with kerosene and lay it away for future orders.

I have described only the simplest way of making the simplest process signs, but when you have mastered the simple work you will have much less trouble in handling the more complicated jobs.

You can get materials for process work from most any large dealer in sign painters supplies. See the addresses of dealers in back of this book, page 129. As I have said before practically no two men use exactly the same process, and if you discover ways to improve on this, or any other method, by all means make use of your discoveries.



Line drawings are the principal form of Commercial Art work. They are cheaper to reproduce than any other kind of art work.

Such drawings must be made pure black and white with no gray tones or colors.

The different shades and tones are represented with combinations of black and white lines or dots.

Such drawings are made with pen and ink and are usually made a good deal larger than you see printed and are reduced by photography when the printing cut is made.

The original designs and alphabet plates for this book were from two to five times as large as they are printed, some of the full page originals were about 7 x 10 inches while others were as large as 17 x 26 inches.

The chapter headings in this book are something like the ordinary run of pen and ink work; they were hastily drawn, but most commercial work must be dashed off on short notice.

If you should copy any of these for practice 104

HOW TO PAINT SIGNS AND SHO' CARDS

work make your drawings about three times as wide as the prints.

Now regarding materials. Here is exactly what you will need:

Drawing Paper:—There are many good makes an ordinary linen tablet is good for pencil sketching. For pen work I prefer high finish two-ply Strathmore or Bainbridge Bristol Board.

Waterproof Black Drawing Ink:—Higgins' is considered the standard make.

Drawing Pens:—Here are the ones used by all the leading pen artists: Crow quill, Gillott's No. 170, 290, 303 or 404. Spencerian No. 5 or No. 12. Try them all and select the ones you like best. Gillott's 303 is used more than any one kind and I consider it best for general work. They sell for about 15 cents per dozen and can be used in an ordinary pen holder. Gillott's 1068 is a rigid pen of the same size and price and is good for fine lettering.

You should also have a drawing board, T square, 30 x 60 degrees, and 45 degree triangle, several lead pencils, a dozen thumb tacks and a piece of art gum for erasing pencil lines.

A compass with pen and pencil points and a ruling pen will also be useful. The ruling pen is not filled by dipping in the ink but by dropping a drop of ink between the blades from the quill of the ink bottle stopper or from a common pen. The ruling pen is not used free hand but alongside a ruler or irregular curve for making smooth lines.

Chinese white is used with a small red sable

27 DECORATIVE "CAPS."



The jar white is most convenient; Devoe's permanent white, Holmes' white and Semple's white are all good.

The above material can all be obtained at any art store, or you can order by mail from the Devoe and Raynolds Co., New York or Chicago, or F. Weber and Co., Philadelphia.

Lead pencil drawings do not reproduce well, but a drawing made on rough paper with a Keremic or black grease crayon will reproduce nicely as a line cut.

You can enlarge pictures by marking them off in one inch squares and then ruling two inch or other size squares on your drawing paper.

The Pantograph is an instrument for enlarging pictures also, but I strongly advise you not to waste time with such mechanical means of drawing. Practice will enable you to draw correct proportions free hand, but mechanical methods of copying will never help you to become an artist.

In former years drawings were marked for ½ reduction, ⅓ reduction, etc. But it is better to mark them to reduce to four inches face measurement or whatever size may be. When drawings are used in newspapers they are usually marked to reduce to 1 Column, 2 Col's, or whatever number of columns they are to occupy.

All writing on face of drawings should be done with a blue pencil. Blue does not photograph and the writing will not show on the cut.

In making pen drawings for printing purposes
108

make your lines heavy enough to show up well when reduced, they need not be extremely heavy, simply avoid scratchy hair lines and keep the lines far enough apart so they will not run together when reduced.

One of the most important things in pen rendering is to make the lines follow the form.

Your paper is perfectly flat but you can suggest distance and form by the proper handling of lines and treatment of light and shade effects.

In making a drawing always consider what direction the light is supposed to come from and arrange your highlights and shadows accordingly.

Many artists make the first pencil sketch on a thin piece of paper, then when it has been altered and rearranged until the entire design is satisfactory the artist rubs a blue pencil, or even a soft lead pencil, all over the back of the sketch, and then transfers the drawing to a clean cardboard by going over the lines with a hard pencil.

After you have finished inking in the pencil sketch and it is dry, erase all the lead pencil lines with a piece of art gum.

The decorative figures shown are rearranged from half-tone drawings by Mucha.

This is very good practice to render photos or half-tone pictures in pen lines. Your first practice, however, should be straight pen and ink copies.

Pen drawings are sometimes made directly over a silver print photo with waterproof ink, and then the photo is faded out with chemicals.

In doing pen lettering for reproduction use the

MOVIE TITLE ALPHABET. ARCDFFG HIIKĽMN WXYZEabcdefghi jklmnopgr stuvwxyz



ruling pen as much as possible as it will help you in making smooth lines.

Moving picture titles are lettered on dark photographs or dark cardboard with white ink or show card color.

The artist must be careful to avoid fine hair lines or fine pointed spurs on his lettering as they will show up gray instead of white when the title is photographed and thrown on the screen.

Some artists are using a brush instead of a pen for line drawings. Small sizes of pointed Red Sable brushes are good, and some artists use Jap art brushes.

Don't try to sell your work until it is good enough to be really salable.

Don't do careless work; draw carefully, lovingly and with feeling, and remember that nothing is beautiful in art unless it has character.

Whatever you draw look for the character of the thing and try to make every line a harmonious part of the particular object. This applies to everything, from the letters of the alphabet to the most elaborate painting.

A good artist is never fully satisfied with his work but is always striving for something better.

Lettering is the most important branch of Commercial Art and good lettering artists are always in demand.

If you live in a large city it will pay you to attend night classes and study figure drawing.

Nude figures are little used in practical work, but if you can sketch a nude figure in any position and then put the clothes on it, it is more certain to look natural and well posed.

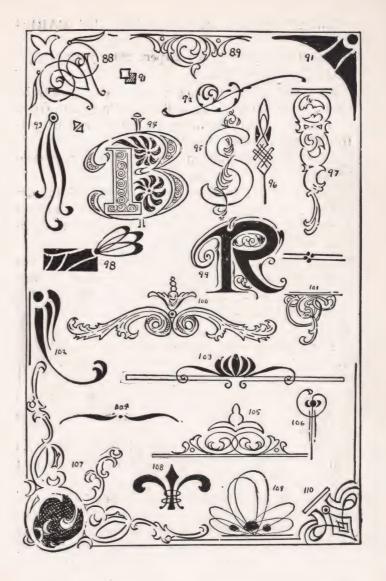
The human figure is the most graceful form imaginable, and when you can really draw it well, other things will be comparatively easy.



Make careful enlarged copies of the shoes and index hand, Figs. 46, 47 and 48, on fairly heavy paper, then go over all the lines with a tracing wheel, or punch holes along the lines about every sixth of an inch with a carpet tack. Then sandpaper the projections from the opposite side and you have a good pounce pattern for windows or boards. By turning the paper over you can make the hand point either to the left or to the right.

Select some suitable scrolls from the samples shown herein and make enlarged copies of them. In scrolls where the two ends are alike as Nos. 75, 77, 105, etc., you should make a careful drawing of half the scroll, then fold your paper in the middle, where the center of the scroll is to be, and trace





the pattern through the paper, thus your design will balance exactly.

Such serolls for window work should usually be about six times as large as they are in these prints. If the design measures $2\frac{1}{2}$ inches wide your pattern should be about 15 inches wide.

When your drawing is complete, make a pounce pattern of it as described above

For windows take about an ounce of talcum powder, whiting, or powdered chalk and tie it in a small bag of cotton cloth, an empty Bull Durham tobacco bag is very good.

Now hold or fasten your paper pattern in the proper place on the window and pounce the bag of powder on it. The powder will go through the holes and leave a perfect outline of the design on the glass.

For white boards you can use dry red color in the pounce, or powdered charcoal is better.

If your scroll is to be painted on the outside of the glass you can pounce the design on the inside if you wish and then rub it off after the scroll is painted.

After you have painted a scroll five or ten times you may be able to dispense with the pattern and do the scroll free hand.

You can use a small lettering brush to paint scrolls, but you can do it easier with No. 3 and No. 6 pointed camel hair scrolling pencils. If you can't obtain these at home, send to The Geo. E. Watson Co., 62 W. Lake St., Chicago, Ill., for a catalogue of painters' supplies. You can learn a

HOW TO PAINT SIGNS AND SHO' CARDS

great deal about materials and their uses from such a catalogue.

When you have an old board sign to repaint you can trace around the letters with an indelible pencil. Then paint the board with white lead and the pencil marks will "bleed through" so that you can easily repaint the old design.

Kerosene is better than gas or turps for cleaning brushes or taking paint off of your hands.

Save all old muslin signs and send them to the laundry; they make the finest wiping cloths to be had, and it only costs a few cents a pound to have them washed.

"Taxtite," made by the Sherwin-Williams Co., is a paint remover which is unusually good for removing old window signs.

Turpentine flattens color or makes it dull; varnish mixed with color brightens it and preserves the brilliancy. Boiled oil dries quicker than raw linseed oil, and is therefore used more in sign painting.

Signs should be very briefly worded; four well selected words can often do the business better than forty.

For painting inside of windows plain black a mixture of two parts asphaltum to one part coach

117

black is good, thin with turpentine when necessary. No varnish is required.

Japan color is used for show cards which are exposed to the weather; letter with camel hair pencils.

IN ANTAL

· Ja 5 mult

A simple method to keep paint from peeling on galvanized iron signs is to rub the metal with a cloth saturated in vinegar, when it dries rub off the white sediment and the metal is ready for paint.

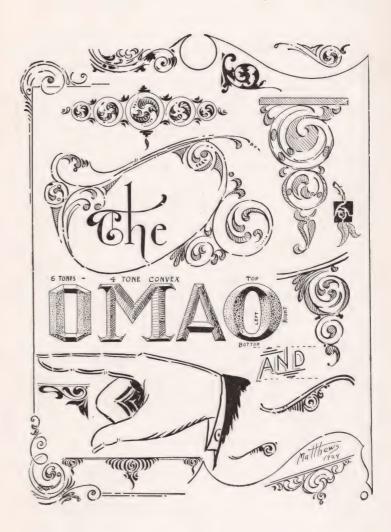
Don't paint on the inside of a window when it is steaming or damp, even if you get the paint to stick it will soon turn white and peel off.

If you have trouble with an old color "bleeding through" when repainting a sign, put on a thin coat of shellac, which will dry almost instantly and stop the bleeding.

Gold leaf somtimes sticks to the leaves of the book in damp or cold weather; warm it before using. (Don't confuse this with patent gold which is made that way for gilding in the wind.)

Chrome yellow will show up some surfaces where no other color will.

Good material is less expensive in the end. A pound of good color ground in oil costs about twice as much as a pound of mixed paint, but it



will paint four times as much surface and produce better work.

In buying camel hair lettering pencils be sure you get the best grade. They have long even hair cut perfectly square at the end and are firmly fastened in good quills with a piece of wire or a heavy indentation. You can fit wood handles in them to suit yourself. The regular sign painters' supply houses carry the good grade brushes, but many common paint stores sell a very inferior article.

Linseed oil will curdle Japan color if you attempt to mix them; they must be ground together to combine properly.

The Jewish sign shown in Fig. 49 is a meat market sign, sometimes the left half of the sign is used alone on restaurants, etc.

Large bulletins and brick wall signs are usually drawn to scale. That is, a small sketch is made of the proposed sign on a scale of about one inch to the foot. The sketch is drawn in perfect detail, showing styles of lettering, and picture well worked out. Also an explanation of the color scheme, or in some cases the sketch is worked up in full color. When this sketch has been approved, it is marked into one inch squares and the large sign is first given two coats of white lead and then marked into squares of one or two feet square to correspond with the sketch. This makes it easy to

keep everything in exact proportion to the original sketch.

Mammouth muslin signs, theatrical backgrounds, etc., are usually painted in distemper color.

Distemper color can be prepared as follows:

Put one pound of Kalsominer's glue in one gallon of cold water and allow it to soak over night. Next morning put this prepartion on the stove and bring it to a boil and add a few drops of carbolic acid and a tablespoonful of powdered alum, mix well and then gradually stir in dry color. Keep this on a low fire while using. Use fresco bristle brushes for detail or cutting in and large flat bristle brushes for "filling in."

Remember this paint must be used hot.

Printers' ink thinned with gasoline is good for paper or muslin signs, varnish can also be added if desired.

To prevent window sweating and frost on show windows in winter add two ounces of glycerine to one quart of 62 per cent grain alcohol and one drachm oil of amber; let stand until it clears and rub on inside of window.

When a varnish surface is too tacky to permit laying gold leaf or rubbing on aluminum bronze, you may overcome the trouble by mixing the white of an egg with two-thirds of a cupful of cider vinegar, give the surface two coats of this preparation and then you can do your lettering with quick size and apply the gold leaf or aluminum. It will

stick to the surface but when dry the egg size can be washed off and you will have a clean job.

A good way to do auto lettering in gold leaf is to pounce the surface with French chalk then letter with clear gold size, the brush strokes will show plainly in the white chalk, when the size reaches the right tack apply the gold. This is better than mixing paint with the gold size because it will always dry evenly.

For cheap truck lettering, especially where the surface is too tacky to rub on aluminum, mix dry striping aluminum with chrome yellow oil color and a little quick rubbing varnish and keep it fairly thin with turpentine. This paint covers perfectly for single stroke work. It dries down to a beautiful gold color which shows up equally well on dark green, red, blue or black backgrounds. When shaded with black or red it makes a very showy job.

In painting a script sign first draw the top and bottom guide lines, then draw slanting lines across these every few inches to give the proper slant to the letters, now sketch out the lettering with a pencil or crayon, then outline the letters with a small brush and afterward fill them in.

Convex letters as shown on the plate of scrolls are very popular on the Pacific coast and they are easier to make than most people imagine. They are

HOW TO PAINT SIGNS AND SHO' CARDS

usually made with four tones of yellow ochre and burnt sienna. Half block and Full block letters require six tones on some of the letters, as shown on the first letter O.

However the rounded alphabets—Egyptian, Roman, Script, etc., require only four tones of color and are therefore used most. On the round letters the tones are blended where they join as shown in the last letter O.

These letters are usually cut in with black. After the ground is coated with white lead tinted with a little yellow mark out the letters and bevel lines carefully with an indelible pencil. Then spot the lightest or upper tone roughly on all the letters with a mixture of white lead paint and yellow ochre. (Use plenty of dryer if you intend to make a smalted sign.)

Next spot on the second or left hand tone, making a careful bevel on the square letters or blend on the round ones where the color joins the first tone. Your second tone is made same as the first only use more yellow ochre and less white.

The third or right hand tone is made of white, yellow othre and burnt sienna. You may run it beyond the letters also as the pencil marks will bleed through, but make it cut clean at the bevel.

Last spot on the bottom tone this is the same as number three only it contains more burnt sienna. Don't get too much contrast between your tones but be sure to get enough to make the bevel show plainly.

It is best to mix all four tones and try them before you start. After the four tones are on cut in

with black. A narrow orange highlight along the lower edge of the darkest tone also helps the letters.

To make a black board finish on bill of fare boards, etc., mix a little powdered pumice with coach black and spar varnish and paint the board with it.

When you drop paint on a board sign clean it off with a cloth saturated in linseed oil, this will not injure the background.

To make your own show card colors, buy dry color and cut it with alcohol then mix in water, a little mucilage and just a few drops of glycerine.

Ammonia or lye water makes cheap and efficient paint remover.

To clean off false strokes or change mistakes in back up on gold window signs saturate a piece of cotton in gasoline and wash off the paint (this will not harm the gold) then polish the leaf with a dry wad of cotton and repaint the letter.

Most painters make their gold window lettering too heavy, use a small brush and do your Egyptian lettering very light face in single stroke style just as freely as you would write a show card. Trim up the letters then make a wide black shade heavier below the letters than it is on the side. (See the heading "Window Signs".) Snap a fine line for the bottom of the shade, pull your strokes right over

HOW TO PAINT SIGNS AND SHO' CARDS

the line and trim them afterward square to the line. This saves time and improves the appearance of your work.

Cover old, rough boards with white oilcloth this makes a fine surface to work on, and will last longer than if filled with putty.

To make a straight gold stripe on glass snap the lines for both edges of the stripe on the outside of the window, then lay the leaf on the inside and when it is dry take a good straight edge and a soft wood wedge, wet the wedge in your mouth and scrape the gold off a strip on each side of where the gold stripe is to be. Now back up the stripe with clear Damar Varnish allowing the varnish to extend into the open space you scratched. Then clean off the surplus and you have a perfect stripe. The only trouble is to learn to hold the straight edge firmly in one place while scratching.

You can also make a perfect gold circle on glass by fastening a small wood wedge to a compass and using the same method.

To get an unusual effect in dead centers on gold window work fill in the center of the letter with clear fat oil size, then after 12 hours or more (when the size is almost dry) rub on the pale leaf and afterward take a small piece of cotton and give it a twisting, rotary motion while holding it against the gold. Repeat this for every square inch, or less, of surface and the centers will have a rich

damaskeen finish like the polish often seen on watch movements or the inside of a watch case.

A very showy and inexpensive inside window sign can be made by outlining with coach black, then fill the letters in with a mixture of equal parts quick rubbing varnish and turpentine. In from fifteen minutes to an hour, according to the weather, you can lay aluminum leaf on this size and rub it to a good burnish, then shade the letters with red or other color, and varnish. You can also use imitation gold leaf, but the aluminum is more durable.

The easiest way for a beginner to get letters properly spaced is to measure the space and count the letters in each line of lettering. Then divide the length of the space by the number of letter spaces, this will give you the average width for each letter, you can make small chalk marks or dots along the line and be sure that the lettering will come out right.

For instance if you wished to letter the words JOHN BROWN, TAILOR, in a space ten feet long you should leave at least a six-inch margin at each end, this would leave nine feet or 108 inches. Counting the spaces between words and allowing half a space for the letter I you have 16½ letter spaces.

Divide 108 inches by $16\frac{1}{2}$ gives you about $6\frac{1}{2}$ inches as the average width of each letter. The letters O, W and A should be wider, you can cut

HOW TO PAINT SIGNS AND SHO' CARDS

down on the width of the J and L and the spaces between words to make up for the wide letters.

You will find this method much easier than the old way of spacing by guess, especially on large signs or lettering arranged in a half circle where one ends of the line must balance perfectly to look right. Of course it is not practical for small quick work such as show cards, etc.

To make a nice burnish gold letter on a shaving mug or glass globe gild with water size and burnish with cotton then paint the letter on the gold with asphaltum, clean off the surplus gold with damp cotton and wash off the asphaltum with turpentine and varnish the gold letter.

Never use your show card or distemper brushes in oil or japan colors. And don't put your oil color brushes in water.

To test dry vermillion, to detect adulteration, pour a small quantity of Muriatic Acid on some dry color; if adulterated the pigment will fade.

You can make your own academy boards for painting oil color pictures by giving any heavy cardboard a coat of shellac, and later a coat of flat light cream color, stipple with a wad of cloth while paint is wet. This gives the board a surface resembling canvas.

And now for a few parting words of advice to the amateur sign painter.

127

Read this book over several times, as you are almost certain to skip or misunderstand some important points during the first reading; also carefully study every illustration and make several carefully enlarged copies of the alphabets you intend to use.

Until very recently all sign painters' trade secrets were jealously guarded and a man had to work for many years to acquire even a fair knowledge of the art.

The secrets are no longer withheld and by referring to this book you can find the proper method of doing every kind of work now done by the trade.

With this much in your favor you should be able by observation and diligent practice to equal and even surpass the work of many old-timers within a very few years.

Keep your eyes open and observe all the different signs you see. Make notes of all the pleasing color combinations and notice how the professionals arrange the reading matter to make it attractive and legible.

You will soon learn to judge the different classes of work and even to tell one man's work from another. Apply all the knowledge thus gained to your own work.

Upon request, we will try to supply any book on Art and allied subjects published. J. S. Ogilvie Publishing Co., 57 Rose Street, New York, N. Y.

THE END

DEALERS IN ARTISTS' SUPPLIES

Materials may be purchased by mail from the following dealers, who specialize in sign painters' and artists' supplies.

Note—When writing any of these firms, please mention that you secured their name and address from this book.

ART SUPPLY Co., 230 W. Water StMilwaukee, W	is.
BART SUPPLIES, 315 First Ave. No Minneapolis, Mir	ın.
BECKER SIGN SUPPLY Co. Baltimore, N.	Id.
DICK BLICK CO. Galesburg, I	111.
DICK BLICK CO	To.
COOK PAINT AND VARNISH CO 1319 Grand, Kansas City, M.	nio
BERT L. DAILY Dayton, Ol	110
DONE DE LAND CO. 415 So. Main St Los Angeles, Ca.	111.
Dinger Gropes Inc. Atlanta, Ga.: Boston, Mass.; Bridgept	mt,
Conn · Brookline Mass.: Buffalo, N. 1., Ullicago, I	11.,
Clayeland Ohio: Dallas, Texas; Denver, Colo.; Della	JIU,
Mich . Hartford Conn . Jacksonville, Fla.; Kallsas Ci	ıty,
Mass.: Minneapolis, Min	11.,
New Hoven Conn : New Orleans, La.; New 101K, IV.	1 ,
Omeho Mohn : Portland Me : Shreveport, La., Spii	118
field, Mass.; St. Paul, Minn.; Syracuse, N. Y.; Tulsa Okl	a.;
Wighita Kan Worcester, Mass.	
Wichita, Itali., Workers, Tanana Co	11:6

DUNCAN, VAIL Co., 730 So. Hill St. . . . Los Angeles, Calif.

E. H. AND A. C. FRIEDRICHS 40 E. 43rd St., New York, N. Y.
New York, N. Y. Roston Mass
G T HAVEN 29 Stuart St
E E Hoopen & Co. 8-10 So. Warren St Henton, N.
M. Hopeway 11 Cooper Sci. New 1018, 11.
Montreal, Toronto, Winnipeg, Ottawa
G W ZEENAN 170 Livingston St Brooklyn, N. 1
G B Krans 925 Broadway
C. H. KRAUTER Co., 25 W. Federal St. Youngstown, O
U. H. KMUTER CO., SO

MAURER-CAMPANA ART Co	o, Ill. N. Y.
II D MEININGER 409 Sixteenth St Deliver,	COIO.
Conveyee & Co 123 W 68th St New 101k,	TA. T.
Committee Frey Sty Co. San Francisco,	Call.
A & D Swith Co 633 Smithfield St Pittsburg	п, га.
Course TANDENCE WALL PA CO. 11 B way, Lawlence,	TAT CODD.
Champing Moss Co. 42 Franklin St	MIGSS.
STENCH, NOVELTY Co., 13 E. 14th St New York,	N. Y.

WAITI & GLASS, 828½ E. Main St. Richmond, Va. GEORGE E. WATSON Co., 164 W. Lake St. Chicago, Ill. F. WEBER & Co., St. Louis, Mo.; Philadelphia, Pa.; Baltimore, Md.

How to Get Business

[Reprinted from the Novelty News.]

"Here's a good one," writes G. N. Crandell, of Portsmouth, Va. "It may be old as the hills, but it still works.

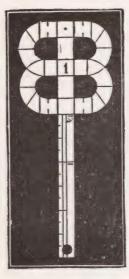
"Sunday, when I was looking over our local newspaper, an idea struck me. I didn't let it stop with an idea not worked. This morning I started right out with it and only tried one man, and it worked.

"I took clippings of twenty-two articles advertised by the manufacturers of patent medicines, which all druggists handle, and rushed off to see what the leading druggist thought of the idea. I simply told the druggist that I could show him where he could get the benefit of at least two hundred dollars' worth of advertising for practically nothing, showing him my clippings and explaining that I could make several attractive show cards of several of the articles he would like to display in his window. The public, reading the advertisement in the newspaper and seeing it in his window, would naturally think the advertisement was his. The druggist took me up. So there you are. It worked with me and it will work with you."

It's Easy to Learn Sign Painting, Show Card Writing and Poster Work with

THE MASTER LETTERING KEYS

More Than 50 Different Styles and Sizes with One and the Same Instrument



Exact size; used for making | inch letters and figures.

This simple and unique invention provides a pattern or drafting tool with which amateur sign painters and others can easily and accurately lay out letters and numerals. Whenever or wherever signs, placards, bulleti..s, signals or notices are needed or used, as well as for lettering of any kind, THE MASTER LETTERING KEYS supply the demand for an instrument with which to do the work.

Painters, decorators and helpers can easily learn to make signs with the help of these instruments. They are also useful for marking out letters and numerals for making stencils and they eliminate the use of letter patterns. Many of these instruments have been sold to students after they have finished their course in lettering schools.

With the instructions, given with each set of instrucments, very little practice or skill is required to accomplish satisfactory results, which makes them money savers and an inspiration in any store or factory. Besides they have great educational value in the home and

they are very economical since only one instrument is required to make all the letters and figures.

These instruments are made of aluminum and will not tarnish. Sizes 1, 1½ and 2 inches are sold only in sets in a vest-pocket leather case, price postpaid \$1.50.

The price of the 3 inch size is 75 cents, but all four sizes will be sent for \$2.00.

J. S. OGILVIE PUBLISHING COMPANY 57 ROSE STREET NEW YORK, N. Y.

The Art of Sign Painting

By F. H. ATKINSON



This book embraces a series of instructions written and illustrated in a practical manner. It contains lesson sheets and review questions, ninety-six designs in complete composition, with color note for each; 160 pages of practical text matter, and 75 alphabets. As an every-day reference book for active sign painters, it stands alone—replete

with color schemes, color notes and color composition. This revised edition contains an outdoor display section with text and thirty-two new layouts.

Large Quarto. 356 Pages. Illustrated. Cloth, with Cover Design Stamped in Five Colors. Price, \$4.00. Postage 25 cents additional

Scene Painting and Bulletin Art

By F. H. ATKINSON

This book is written in three sections: (1) Educational—containing practical instruction in color and technique, gives the true system of establishing "tone", also how to establish the "key"; elementary and advanced drawing. The charters on Perspective are thorough and fully illustrated. (2) Scene Painting—everything from equipping a studio to finished scenes. (3) The Bulletin Art section is devoted to the latest methods in use by bulletin artists, gives all preliminary steps, scaling, treatment of the surface, "con-



trol" of values, drawing pounces, composition, restrictions, standard palettes. Every sign painter should have this book.

Size, 9x12. 256 Pages. Fully Illustrated. Cloth, with Cover Design Stamped in Five Colors. Price, \$4.00 Postage 25 cents additional.

J. S. OGILVIE PUBLISHING CO., 57 Rose St., NEW YORK, N. Y.

The STUDIO HANDBOOK OF LETTERING and DESIGN

STUDIO HANDBOOK

FOR

ARTISTS AND ADVERTISERS

BY SAMUEL WELO

This book is built with a basis of many years' experience in the field of Art for Advertising, by a Com-

mercial Artist who has made a study of the many needs that come daily to the Artist and the Advertiser.

A Book for all Needs - Brim full of Help HAND LETTERED from COVER to COVER

TABLE OF CONTENTS

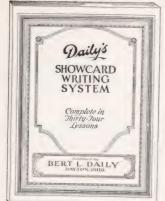
Whys and Whats on Lettering—What Lettering Can Express—Occasional Lettering, Fifty Styles—Arrangement of Lettering—Lettering That Commands—Get Balance in Layouts—Panels, Will Help You—Copy-Box "Corners," Twentynine Styles—Page Rules, Thirty-five Styles—Border Suggestions—Use Ornament Design—Ribbons—Dingbats—Theatrical Masks—The Printer's Rules—Type Characters—Publication Sizes—History of the Letter—Old and Modern English—The German Black Letter—French Script—All Modern Alphabets, Sixty-two 'Pages—Latest in Lettering—Find the Right "The"—Trade Marks—Monograms—Question Marks—Ampersands—Numerals—Helpful Hints.

The Studio Handbook contains 233 pages, size 5 x 7 inches, and is bound in flexible leatherette, with colored edges.

Price \$3.25, postage paid.

J. S. OGILVIE PUBLISHING COMPANY
57 ROSE STREET NEW YORK, N. Y.

DAILY'S SHOW CARD WRITING SYSTEM



Contains a course in Show Card Writing. It is complete in thirty-four lessons and covers every phase of instruction essential in the art of producing attractive and business-pulling. show cards. The lessons are fully illustrated, and the technical instruction is presented in such a simple and interesting manner as to be easily understood even by the novice. Equipped with this book and a card-writing outfit, a merchant or display man may make his own show cards with little trouble and a great amount of satisfaction.

The series of lessons was written by Messrs. A. E. Hurst and C. J. Nowak, of the Economist Training School, both of whom are authorities on show-card writing instruction. All of the best alphabets adapted for card writing are reproduced and described. Specimens of both Soennecken and Payzant pen-work, handbrush work and air-brush effects are illustrated on accompanying cards. There is also some valuable advice as to mixing colors and what contrasts and combinations appear best in show-card work.

This book has just been issued, and contains "up-to-the-minute" information that will be found just as valuable to the ones that are advanced in this work as to the beginner. Order a copy of this new edition today. The most practical book ever published.

IMPORTANT POINTS

To give an idea of what you will get for only two dollars, we mention a few of the features found in this book:

There are 100 pager—averaging to cost you but two cents per page—including the covers. The stock is very fine, highly calendered paper, which brings out the illustrations in the best possible way.

The book is thoroughly illustrated, with line, half-tone, and combination cuts. There are 189 illustrations—an average of over 2 to each page of text. The illustrations and cuts alone represent an outlay of over a thousand dollars. The best illustrations in a book of this kind are of the greatest importance.

The completeness of this book is indicated by the fact that 26 complete alphabets are shown; all that any show-card writer need use. Large sized cuts make it easy to grasp every detail of the different styles.

Among the ideas not usually found in a show card book are the many valuable charts found in this book. Here is a list of them: Color Chart, Window Trimming Chart, Individual Color Chart, Correct Decorative Chart of Contrasted Colors, Correct Decorative Chart of Analogous or Related Colors.

This book gives a list of 185 colleges with the college colors of each school.

Price \$2.00. Postage 10 cents additional.

J. S. OGILVIF PURLISHING CO., 57 Rose St., NEW YORK, N. Y.

New Stencils and Their Use

By F. N. VANDERWALKER



This book is an orderly presentation of the essentials of good stencil work and covers the latest styles and methods for homes churches, lodge halls and small theatres. It is neither too technical nor yet too artistic in its method of treatment. The following chapter headings show the scope of the work: The Value, Use and Abuse of Stencil Decorations; Classification and Selection of Stencils; Stencil Making; Colors and Color Harmony; Working Operations; Some Good Jobs Illustrated; Ceiling, Floor and Fabric Stenciling; Lining and Striping.

12mo. 148 Pages. Illustrated. Cloth. Ink Stamping. Price, \$1.25. Postage 10 cents additional.

A Show at Sho' Cards

By F. H. and G. W. ATKINSON

A practical instruction book for Card Writers. In a clear and concise manner it presents all that can be desired in method, execution and design, as practiced in upto-date show card studios. The book is rich in suggestions of ways of producing novelties, of materials used in producing unique effects, gives all the popular card-writing alphabets and a large list of phrases for inscriptions.

This book embodies the results of twentyfive years' experience in designing, sign and pictorial painting. It meets the needs of experienced card writers as well as the student,



Size, 9x12. 300 Pages. 120 Designs. 35 Alphabets. Cloth, with Cover Design Stamped in Three Colors.

Price, \$4.00. Postage 25 cents additional.

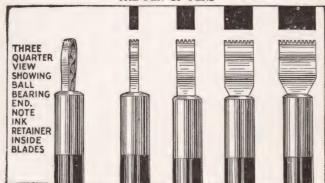
J. S. OGILVIE PUBLISHING CO., 57 Rose St., NEW YORK, N. Y.

COIT'S BALL BEARING LETTERING PENS

The Pen That Does the Work of a Brush "NOT A SPLIT PEN"

Comes in Sizes ½", ¼", ¾" and ½" wide.

THE PEN OF PENS



THE latest improved design. Superior to any other lettering pen on the market. Works smoother, quicker, neater, Adaptable to any kind of lettering, shading, ruling or card writing. Easily cleaned and kept clean. Comes in different sizes.

A PEN BUILT AROUND ONE IDEA—CONVENIENCE

A novel design. Simple to use. No more smudging. No ragged edges A clean cut job from start to finish.

Ten Features of Coit's Ball Bearing Lettering Pens

- 1. Designed especially for quick work.
- Ball bearing Pens are DIPPED—not filled like other pens.
- Made of sheet brass cannot rust or corrode.
- 4. Soldered solid with holder —preserves neatness.
- Equipped with corrugated retainer which holds enough ink for complete line or letter.
- 6. Scientifically constructed and fixed permanently to correct lettering angle.
- 7. Furnished in four sizes for universal use.
- Its round Ball Bearing insures constant even flow of ink.
- Writes a clear cut, sharp line or letter with no smudging or raggedness.
- enough ink for complete 10. Saves your time, ink and line or letter.

MORE SPEED MEANS MORE PROFITS

Complete set of four pens, ½", ½", ½" and ½", sent in a box postpaid to any address upon receipt of Price \$1.50.

Order them now.

J. S. OGILVIE PUBLISHING COMPANY

57 ROSE STREET

NEW YORK, N. Y.

Basic Lettering

Revised Edition
By J. M. HEBERLING



This revised edition contains all the alphabets, designs and layout of the original edition and represents the results of the life work of a great teacher and artist. Mr. Heberling has the happy faculty of showing the student and artist the easiest and best way to get the desired results. The plates are carefully arranged and indexed for quick reference.

A Comprehensive and Practical Presentation of the Art of Lettering. Cloth. Size 9 x 11 in. 171 Pages and Plates,

Price \$3.00 Postpaid

Modernistic Lettering and Design

By A. E. TRIPP



In this new work the author presents only the most practical modernistic alphabets, including poster headline, novelty block, Roman single stroke, speedball classic, classic Roman, decorative Italic, etc.

The designs are rendered in air-brush, pen-and-ink and brush, including perspective vibration effects, panels, curves, angular and circular, water movement, floral and leaf, bird, soft and delicate effects, leaded glass panels, pyramid effects, etc., etc.

These designs are intended as backgrounds for windows, also for displaying merchandise of all kinds, for photographers, and for general decorative effects.

A Portfolio (Size 7 x 10 in.) of the Latest Modernistic Alphabets and Thirty-six Modernistic Designs (Several in Different Colors). Price \$2.25 Postpaid

J. S. OGILVIE PUBLISHING COMPANY
NEW YORK, N. Y.

STRONG'S

Gilding on Glass, Wood and Metal

By Chas. J. and L. S. Strong. Size 6 x 9



Teaches by word and illustration every modern method for applying gold leaf to any surface. Contains valuable formulas, cuts, embossing and burnishing. Used as a reference by over 11,000 sign painters.

Price, prepaid, \$1.25

THE SIGNISTS MODERN

BOOK OF

ALPHABETS

F. DELAMOTTE

THE SIGNIST'S

Modern Book of Alphabets

By F. DELAMOTTE

This elaborate collection includes plain and ornamental, ancient and mediæval alphabets. Among the various texts are Old English, Saxon, German, Italic, Perspective, Greek, Hebrew, Court Hand, Engrossing, Tuscan, Riband, Gothic, Rustic and Arabesque with several original designs,

numerals, Church Text, draftsman's, surveyor's, mason's, decorative painter's and engraver's texts.

A whole page is devoted to each style of alphabet, which makes the work thoroughly practical and complete. Printed on heavy plate paper

Large Octavo, 200 Pages, 100 Designs. Cloth, Stamped in Ink. Price, \$1.50. Postage 15 cents additional.

J. S. OGILVIE PUBLISHING CO., 57 Rose St., NEW YORK, N. Y.



Bissell's

- INSTRUCTIONS ON - MODERN SHOW CARD WRITING

MODERN

PAINTER'S

CYCLOPEDIA

ILLUSTRATED

This book written by the man who manufactured the first practical liquid water colors for show card work is brimful with hints to aid everyday work. It is a book every professional will value, and every beginner will prize. Sixteen large pages of alphabets, six half-tones showing how to hold brush and make strokes, twenty-four illustrations of show cards, perspective of a good work table, nine cuts of brushes, pens and a list of necessary material interspersed with paragraphs which are short and to the point, fill the fifty-six pages of the 9 x 12 inch book.

Paper Bound, Price, 75 cents, postpaid.

Modern Painter's Encyclopedia By F. Maire

The more important subjects treated in this book are: Adulteration of paints, blistering, brushes, calcimining, carriage painting, china painting, colors, color harmony, color mixing, testing, estimating, exterior painting, enameling, flatting, fresco painting, gilding and bronzing, glazing, graining, house painting, marbling, oils and dryers, paper hanging, sign and scene painting, stains and staining, stenciling, varnishes, "vehicles", water colors.

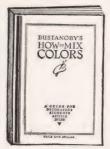
In addition to the text matter, questions bringing out the important points are appended at the end of each chapter. A complete index makes

the book especially valuable for quick reference.

12mo. 464 Pages. 106 Illustrations and 8 Plates. Cloth, Price, \$2,00. Postage 15 cents additional.

J. S. OGILVIE PUBLISHING CO., 57 Rose St., NEW YORK, N.Y.

Bustanoby's How To Mix Colors



A revised, bigger and better book for students, artists, dyers, printers, show card writers, painters and decorators, to assist them in mixing colors to obtain standard and popular hues in as permanent and practical manner as possible. Great thought has been given to the permanency

of the resultant colors which have been matched from the Standard Color Card of America.

The book gives dyeing with oil colors, color mixing for painters and decorators, a word to students and artists, interpretation of color, the ideal palette, decorating interiors, suggestions for obtaining color harmony with chart, pleasing combinations of 2, 3, 4, 5 and 6 colors for designs, furniture, textiles, show cards, apparel and advertising, and the legibility of various colors at a distance for advertising and outdoor billboards

This book is 47% by 71/4 inches in size, contains 107 pages with 406 formulas for 280 colors and shades, with frontispiece in colors, and is bound in heavy artistic paper covers.

Price \$1.00
New York:

J. S. OGILVIE PUBLISHING COMPANY,

57 ROSE STREET.

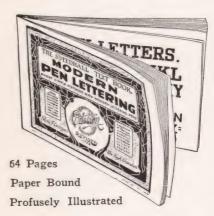


Art Alphabets and Lettering

By J. M. BERGLING 3rd Edition

One of the greatest collections of designs and alphabets ever put in one cover for the use of Engravers, Commercial Artists, Show Card Writers, Engrossers, Painters, Architects and Schools. America's foremost Artists have contributed to this work making it one of the most interesting and useful albums ever printed. Size 8 x 11 inches. 96 pages. Price Cleth Bound \$2.75. Postage 15 cents additional.

Modern Pen Lettering



By Wm. Hugh Gordon and Ross F. George. This book contains new alphabets, border designs and decorative material which will appeal to all. Contains full instructions plainly written for the use of the Speedball Pen. Also contains numerous show card designs, lay-outs and compositions, as well as samples of engrossed testimonials.

Price 50 cents, postage 5 cents additional.

J. S. OGILVIE PUBLISHING COMPANY
57 ROSE STREET
NEW YORK, N. Y.

DRAWING MADE EASY

By CHARLES LEDERER

If You Can Write - - - You Can Learn to Draw



Drawing is an art which nearly everyone can master. True, this has not been the general opinion. But DRAWING MADE EASY has made it so.

Here is a book which, in a simple easy manner, tells and shows you exactly how to draw so that your ideas may be faithfully represented in pictures. It gets to the point and explains in an unusually explicit and accurate way. The author, Charles Lederer, the famous artist-cartoonist, has divulged numerous "tricks of the trade" which go far to simplify many of the usually difficult points.

It assists especially those who have to dig drawing out for themselves, those who want the best and simplest methods.

It is the most comprehensive and thorough work of its kind. In fact, Lederer's DRAWING MADE EASY can teach you HOW TO DRAW, and the more talent you have, the more you will find in the book that will prove of value to you.

The book contains 345 pages, with over 1,000 helpful illustrations, is 6 x 9 inches in size and attractively bound in cloth.

Price \$2.00 net; postpaid \$2.25

Eat with us



keep your wife for a pet

The Show Card Cartoonist

This book is of great interest and practical value to every show card writer and student. It was written by artists whose actual experience is embodied in both the text matter, and the show card cartoon reproductions. More and more, humor and the creation of happiness and good will through advertising are being depended on to create sales. The Show Card Cartoon is coming to the front and doing its share.

Any one chapter is alone worth the price of the book. If you can secure a single idea you can utilize you would have your money's worth, and ideas are what count.

The book is size 5 x 7 inches, contains 114 pages, is fully illustrated and bound in stiff boards.

Price \$1.25, postage 10 cents additional

J. S. OGILVIE PUBLISHING CO. 57 Rose Street, New York

TACKS CARTOON TIPS

By B. "TACK" KNIGHT

This book contains twelve wonderful lessons, easy to follow, by which you can develop your talent and become a high salaried cartoonist.

HIS HARDEST JOB!



ROLLING HOME THE MONEY

COMMENDATIONS

I recently purchased a book of your "Cartoon Tips" and am highly pleased with it.

P. A. Dayton, Ohio

I have your "Cartoon Tips" and find them very helpful.

J.R.McN., Gainesville, Fla.

Since purchasing a copy of "Tacks Cartoons Tips," my drawing is entirely different......it has been a big help.

G.F., Omaha, Neb.

Tack's Cartoon Tips contains over 150 sketches, bound in paper covers. Sent by mail postpaid on receipt of Price 75 cents.

J. S. OGILVIE PUBLISHING COMPANY
NEW YORK

KING'S

Color Mixing Guide

For Painters, Decorators, Show Card Writers, Pressmen, Artists, etc.

By An Expert Color Mixer

This guide is written in the form of a book—it is not a complicated chart—but is written in a way which you can easily understand. You can readily locate any color you want.

Nature furnishes yellow, red and blue. This book shows how to obtain more than 3,000 colors and shades from them.

This guide gives different methods of obtaining practically the same colors, thus giving you a chance to use up left-over colors that would otherwise accumulate.

This guide is just as necessary as the printing press or painter's brush.

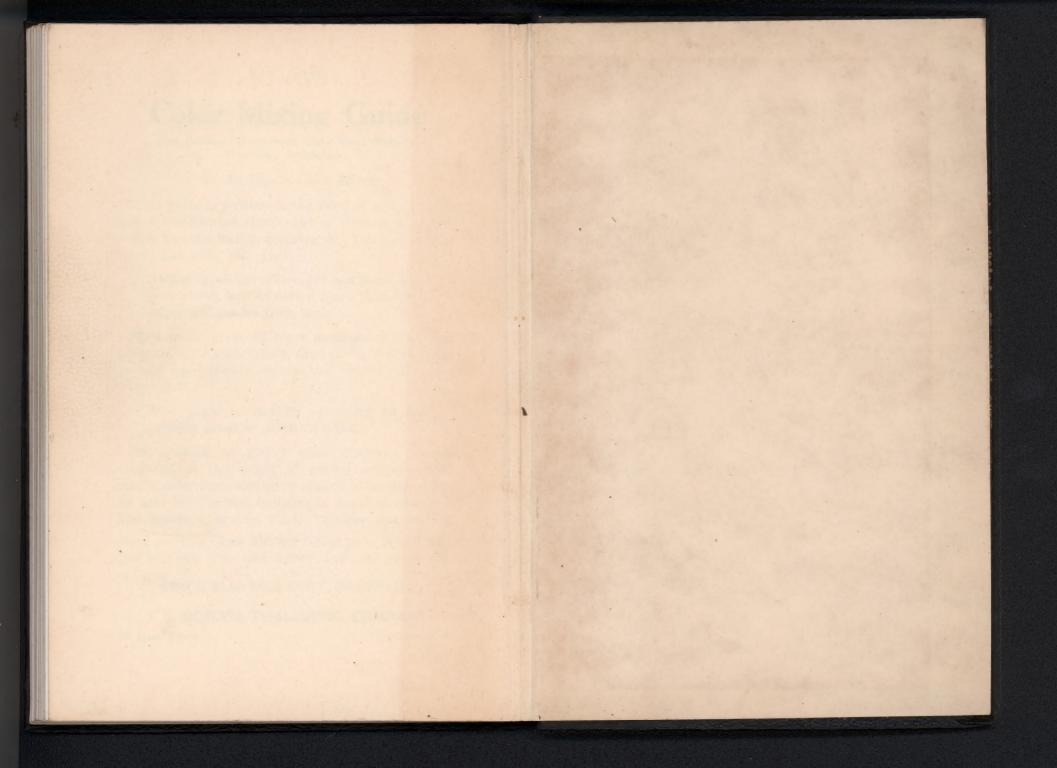
In addition to giving color mixtures, it has chapters on the origin of colors, complimentary colors, color harmony, color mixing as an art, colors as seen by different individuals, hints to pressmen and painters, besides other valuable information. Send for this Color Mixing Guide now, it will save you not only time and money, but also guesswork.

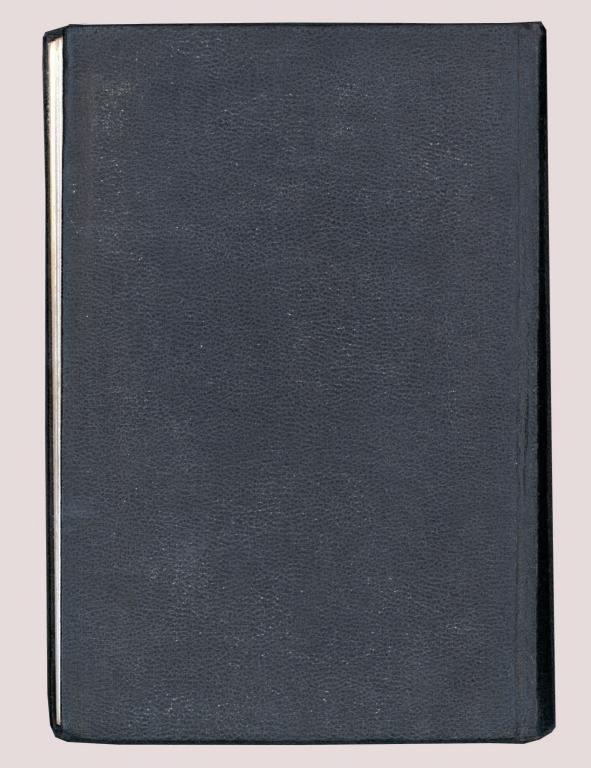
PRICE \$1.00 PER COPY, POSTPAID.

J. S. OGILVIE PUBLISHING COMPANY

57 Rose Street

New York, N.Y.





HOW TO PAIN

HOW TO PAINT
SIGNS AND SHO'S GARDS
E.C. MATTHEWS

SUNTE CAN SAIL SAIL